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GEOLOGICAL SURVEY OF CANADA.
ROBERT BELL, M.D., Sc.D., (CANTAB.), LL.D., F.R.S.

CATALOGUE
OF
CANADIAN BIRDS.

PART II.

BIRDS OF PREY, WOODPECKERS, FLY-CATCHERS,
CROWS, JAYS AND BLACKBIRDS.

INCLUDING THE FOLLOWING ORDERS :

RAPTORES, COCCYGES, PICI, MACROCHIRES, AND PART
OF THE PASSERES.

BY
JOHN MACOUN, M.A., F.R.S.C.,
Naturalist to the Geological Survey of Canada.



OTTAWA :
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EXCELLENT MAJESTY.
1903.

The interval which has elapsed since the publication of Part I. of the Catalogue of Canadian Birds has enabled the author to embody in his work the results of observations made during the past three years by members of the Geological Survey staff and others. The concluding part of the Catalogue, which will contain an index to the three parts, is almost ready for printing and will be published next autumn.

ROBERT BELL.

OTTAWA, April 25th, 1903.

PREFACE.

Three years have elapsed since the publication of Part I of this Catalogue. During that time many further facts have been gathered and recent publications received, so that the part now published will give a somewhat more comprehensive sketch of the geographical distribution than was possible when the first part was published.

Our knowledge of the avi-fauna of Alaska, northern British Columbia, Labrador and the Hudson Bay region has been very much increased by the valuable papers mentioned in the accompanying list. Certain omissions were also made in the list of authorities which are included in this.

Mr. Spreadborough has been busy during the past three summers, and has as usual added much to our knowledge of the whole fauna in the districts where he has been at work. The summer of 1900 he spent in Algonquin Park, Ont., under the direction of the writer; in 1901 he collected in the Coast Range, B.C., chiefly around Chilliwack Lake; and in 1902 between Trail and Cascade on the International Boundary, B.C. During these two seasons he collected under the direction of Mr. J. M. Macoun, Naturalist to the Boundary Commission. Many of the observations credited to Mr. Spreadborough were made by the writer, but as the work was done in company and all the specimens collected by Mr. Spreadborough, some confusion and repetition has been obviated by the omission of the author's name for the years when Mr. Spreadborough was with him. The same may be said of Mr. J. M. Macoun for the years 1901 and 1902 when Mr. Spreadborough acted as his assistant.

Valuable manuscript notes have been received from Mr. C. R. Harte; Mr. Harold Tufts, Wolfville, N.S.; Mr. W. H. Moore, Scotch Lake, N.B.; Mr. J. Hughes-Samuel, Toronto, Ont.; and Mr. J. H. Fleming, Toronto, Ont., and many additional ones from some of the gentlemen mentioned in Part I.

The manuscript for the remainder of the work is nearly ready for the printer but other duties claim my attention during the coming summer and the remainder of the work will be published

next winter. In the meantime, however, the writer asks ornithologists and collectors to send in any other notes they may have on the nesting habits of the *Fringillidae* and following families, so that they may appear in their proper place in the concluding part of the work. An addendum will also be published with Part III in which will be included such additional information as may come to me.

An index and a complete bibliography of the authorities consulted will be embodied in Part III.

JOHN MACOUN.

OTTAWA, April 22nd, 1903.

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LIST OF AUTHORITIES SUPPLEMENTING THAT PUB-
LISHED IN PART I.

Osgood, W. H. Birds of Queen Charlotte Islands, B.C.; and
Cook's Inlet, Alaska, N. A. Fauna, No. 21.

Brooks, Allan. Various papers on British Columbia Birds in the
Auk and Ottawa Naturalist.

Bigelow, Henry B. Birds of the Northeastern Coast of Labrador,
The Auk, Vol. XIX.

Ridgway, Robert. Birds of North and Middle America, Parts I
and II, 1901, 1902.

Grinnell, Joseph. Birds of Kotzebue Sound, Alaska; Birds of
Sitka, Alaska.

Rhoads, Samuel N. Notes on British Columbia Birds.

Stone, Witmer. Birds of North Greenland.

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RAPTORES. BIRDS OF PREY.

FAMILY XXVIII. **CATHARTIDÆ.** AMERICAN VULTURES

CXVIII. **PSEUDOGRYPHUS** RIDGWAY. 1874.

324. **California Vulture.**

Pseudogryphus californianus (SHAW) RIDGW. 1874.

A rare visitant at the mouth of the Fraser River, B.C., apparently attracted by the dead salmon.

In September 1880 I saw two of these birds at Burrard Inlet. (*Fannin.*) This species was said by David Douglas to be a common species as far north as the 49th parallel in 1826. At that time it was extremely abundant in the valley of the Columbia between the Grand Rapids and the Pacific. (*Richardson.*) Seen on Lulu Island (in the Fraser River near its mouth) as late as "three or four years ago" by Mr. W. London. None seen since 1892. (*Rhoads.*) On the 10th September, 1896, I saw between Calgary and the Rocky Mountains two fine specimens of the California Vulture. (*J. Fannin* in *The Auk*, Vol. XIV, p. 89.) As the specimens were not collected I am inclined to doubt the occurrence of this species so far east.

CXIX. **CATHARTES** ILLIGER. 1811.

325. **Turkey Buzzard.**

Cathartes aura (LINN.) SPIX. 1825.

One specimen recorded as taken in New Brunswick by Mr. Boardman. (*Chamberlain.*) About 10th January, 1884, some farmers in the neighbourhood of Nequac, an Acadian village on the northern shore of Miramichi Bay, New Brunswick, observed what they took to be a stray turkey feeding almost daily around their houses and farm yards. The imposture was discovered when it was found feeding on a dead sheep, and it was killed on the 29th of the same month. Towards the middle of September, 1886, I was astonished to learn that another Turkey Buzzard had been captured by Mr. David Savoy of Black Brook, about 20 miles from Nequac in a direct line. I am also informed by a gentleman who saw the bird after it was killed that a Turkey Buzzard was shot

five years ago in the vicinity of Kingston, Kent Co. (*Philip Cox, Jr.*, in *The Auk*, Vol. IV. 205.) The Bishop of Moosonee informed me that a specimen was taken at Moose Factory, on James Bay, in June, 1898, by one of his men. (*J. H. Fleming.*) As far as I am aware this species has been observed only in the southwestern part of the province of Ontario; Mr. Wagstaff writes that he has frequently seen it in Essex Co. and once at Baptiste Creek, some years since. (*McIlwraith.*) Mr. John Sullivan of Kerwood, Lambton Co., has found the nest of this bird, and as it is common in the three western counties it doubtless breeds in fair numbers. I once saw 19 individuals in a single field at Forest, Ont. (*W. E. Saunders.*) In Upper Canada near Sandwich and Lake St. Clair, in 1823, I saw vast numbers of *C. aura* (Turkey Buzzards) and had every opportunity of watching their habits. (*David Douglas.*) The above extract taken from Richardson's *Fauna Boreali* will show the change that has taken place since then.

A tolerably common summer resident in many parts of the prairie region extending from Winnipeg, Man., to the Rocky Mountains. Thompson-Seton in his "Birds of Manitoba" says that it breeds near Qu'Appelle, and as others have seen it in pairs it doubtless breeds in other localities. In May, 1895, the writer found it breeding near Home's Ranch at the mouth of Old Wives' Creek in Eastern Assiniboia. In June of the same year a few pairs were seen in the Cypress Hills at Farewell Creek, and occasional birds were noticed at Medicine Hat, Crane Lake, at West Butte and along the Milk River; three were seen at different times at Edmonton, Alta., in May, 1897 by W. Spreadborough. One was seen at Banff in 1891, and they were seen in numbers at Deer Park on the Columbia River in June 1890; a few observed at Vernon, B. C., in July, 1889. (*Macoun.*) Distributed throughout British Columbia but nowhere common, though in September, 1887, I saw about a dozen together at the mouth of Harrison River. (*Fannin.*) One seen at Nanaimo July 11th, 1893, and in the autumn of 1889 about a dozen at Victoria, Vancouver Island; in June, 1901, eight were seen at Chilliwack, B.C. (*Spreadborough.*) Fannin on page 34 of the catalogue of the museum at Victoria, B.C., describes two vultures in the park at Beacon Hill. He has since written me that they developed into this species.

BREEDING NOTES.—I never saw the Turkey Vulture in Manitoba, but have often seen it in Assiniboia where it breeds. A set

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of two eggs in my collection was taken near Moose Jaw, Assa., May 12th, 1897. I also found it breeding at Rush Lake in May, 1893. It lays 2 eggs on the ground, usually on the sloping bank of a stream. (*W. Raine.*) Nest on the ground, or in a hollow log or stump. (*McIlwraith.*)

MUSEUM SPECIMENS.

One taken at Old Wives Creek, Assa.; one at Indian Head, Assa., and another purchased with the Holman collection.

Two sets of eggs; one taken at Moose Jaw, Assa., May 17th, 1898; the other at Rush Lake, Assa., June 25th, 1893. In the last case there was no nest and the eggs were laid on the ground at the side of a coulée.

CXX. CATHARISTA VIEILLOT. 1816.

326. **Black Vulture.**

Catharista atrata (BARTR.) GRAY 1869.

About half a dozen specimens taken near St. Stephen, N.B., by Mr. Boardman. (*Chamberlain.*) A Black Vulture was shot at Pugwash, Cumberland Co., N.S., on Jan. 12th, 1896, and was brought to Halifax where I identified it. (*Harry Piers in The Auk*, Vol. XV., 196.) On the 28th October last a Black Vulture was killed on the beach at Beauport, about six miles from Quebec; the bird was flying towards carrion. This is, I believe, the first record of a bird of this species being found so far north. It was an adult male. (*C. E. Dionne in The Auk*, Vol. XV., 53.)

FAMILY XXIX. **FALCONIDÆ.** FALCONS, HAWKS, EAGLES, &C.

CXXI. ELANOIDES VIEILLOT. 1818.

327. **Swallow-tailed Kite.**

Elanoides forficatus (LINN.) COUES. 1875.

Casual. One specimen was observed through a glass by Mr. G. R. White, perched on a flag-staff at the rifle range at Ottawa prior to 1881. (*Ottawa Naturalist*, Vol. V, p. 38.) Mr. Hay reports one as having been seen at Port Sidney, Ont., on July 15th, 1897; it sailed several times about his place, and was distinctly seen. I have also an old specimen taken many years ago in Ontario. (*J. H. Fleming.*)

CXXII. **CIRCUS** LACÉPÈDE. 1801.331. **Marsh Hawk. Marsh Harrier.***Circus hudsonius* (LINN.) VIEILL. 1807.

Rare in Newfoundland. Only once seen at Cow Head. (*Reeks.*) Audubon saw it in Labrador. (*Packard.*) The following are our most northern references to this bird: Moose Factory, James Bay, where Spreadborough saw it on June 11th, 1896; Dr. Robert Bell records it from York Factory, Hudson Bay; Clarke mentions its occurrence at Fort Churchill, on the west side of the Bay, and Richardson places its northern limit at Great Bear Lake, in Lat. 65°. Bernard Ross, on the other hand, places its northern limit at Great Slave Lake, and says that it is scarce there.

It is a summer resident and generally distributed in Prince Edward Island, Cape Breton Island, Nova Scotia, New Brunswick, Quebec and Ontario, and is very abundant throughout the whole prairie region, breeding as far north as Great Bear Lake.

Rather rare in the mountains, but not uncommon in the Columbia Valley from Revelstoke south. Rather common westward, and becoming abundant at Sicamous and westward to Spence's Bridge, B.C. (*Macoun.*) Abundant on the mainland of British Columbia at Sumas, Chilliwack, mouth of the Fraser, and east of the Coast Range. Partially migratory. A few are found throughout the winter in the neighbourhood of Ladner's, near the mouth of the Fraser. (*Fannin.*) These birds are numerous throughout northern Alaska during the migrations. They are seen frequently along the barren coast of Behring Sea, and have been recorded as rather uncommon in the interior. (*Nelson.*) This bird appears to be a resident of the Yukon district only between the early part of April and late November. The species is a rare summer visitor on Attu Island. (*Turner.*) Observed in winter at Lake Okanagan, B.C. (*Brooks.*) Noted at every stopping-place in British Columbia. Nowhere abundant. (*Rhoads.*) I saw this species at Cape Blossom, Kotzebue Sound, Alaska, on two occasions. Marsh hawks were frequently noted at our winter camp on the Kowak the last of August. (*Grinnell.*)

BREEDING NOTES.—This species breeds frequently in the neighbourhood of Ottawa. Its nest is composed of dry grass

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with a few dry sticks, probably to strengthen it. There is an inner lining of feathers few and far between to form a bed for the eggs, which are from four to six in number, of a dull white with the faintest shade of green and soiled, but no decided spots on them. The nest is built on the ground, or at the base of a low bush near a marsh, about the middle of May. (*G. R. White.*) Besides in the large marshes and the small ones, this bird will even breed in an uncultivated field at times, and is, if anything, more common than formerly. Nest on the ground, among shrubs, generally in a swampy place. Eggs four or five, white, rapidly soiled. (*W. E. Saunders.*)

This is a well-distributed summer resident in the counties of Renfrew, Leeds and Lanark in Eastern Ontario. It arrives in the early part of April and does not leave until October. I have found its nest, on several occasions, in marshy places. Once in a small marsh, Township of Escott, Leeds Co., near a public road. This was on the 22nd May, 1893. The nest contained five eggs almost as much spotted as those of the Red-shouldered Hawk. The nest was built on the end of an old log that was partly covered with moss and other growth and surrounded by rushes. It was formed of sticks, and grass stalks were used for lining. This species breeds every year at the head of Wolfe Island and lower down the St. Lawrence. Its eggs are seldom laid before May 18th in Eastern Ontario. (*Rev. C. J. Young.*) Breeds in abundance on the prairies, but prefers bushy places for nesting in. Its nest is built, on the ground, of sticks and lined with coarse grass. Mr. Spreadborough found two nests near Medicine Hat in May, 1894. Both were located amongst a low growth of snow-berry (*Symphoricarpos racemosus*) and contained four eggs. (*Macoun.*)

I have found this bird breeding throughout Manitoba, Assiniboia and Alberta. It makes its nest on the ground, consisting of a heap of marsh hay, and lays from 5 to 7 eggs. I took a set of 5 eggs at Crescent Lake, Assa., on June 5th, 1901. I have another set of 7 eggs taken in northern Alberta, May 24th, 1898. (*W. Raine.*)

In June, 1865, an Eskimo snared a female bird on her nest in a willow bush along the lower Anderson River, about Lat. 68° 30'. It contained five eggs. In June, 1866, a nest composed of twigs and grasses, &c., was found in a similar position; there were six eggs in this nest. (*Macfarlane.*)

MUSEUM SPECIMENS.

Six ; one taken at Britannia Bay, six miles from Ottawa, Oct. 10th, 1887, by Mr. G. R. White; one purchased with the Holman collection, and four others taken at Indian Head, Assa., at Medicine Hat, Assa., at Edmonton, Alta., and one at Chilliwack, B.C., September 19th, 1901, by W. Spreadborough.

One set of six eggs taken near Edmonton, Alta., June 2nd, 1897 ; nest on the ground made of grass and weeds. Another set of four eggs taken May 27th, 1894. Both taken by W. Spreadborough.

CXXIII. **ACCIPITER** BRISSON. 1760.332. **Sharp-shinned Hawk.**

Accipiter velox (WILS.) VIGORS. 1824.

This is one of the commonest hawks we have in the greater part of the Dominion.

Spreadborough saw only one, when exploring, in northern Labrador, July 8th, 1896. Richardson records the taking of one at Moose Factory on James Bay, and these two records cover our knowledge of its occurrence in the Hudson Bay region. Reeks records it as a common summer resident in Newfoundland, the writer found it common on Prince Edward Island, Downs says it is equally so in Nova Scotia and Chamberlain says it is the commonest hawk in New Brunswick. All observers agree that in Quebec and Ontario it is a common summer resident. Thompson-Seton makes it a common species in the wooded parts of Manitoba, and the writer found it everywhere on the prairie regions where there was brush or trees. Ross says it is common on the Mackenzie to Lat. 62° at Fort Simpson. With the above records we are safe in saying that it is found in all the wooded country south of Lat. 60°. Our mountain records show that it is common at Banff and in the whole valley of the Columbia, more especially at Revelstoke and Arrow Lakes, also in the valley of the Thompson River from Eagle Pass to Kamloops. Fannin and Brooks report it common west of the coast range in British Columbia, while the writer and Mr. Spreadborough found it common on Vancouver Island. Turner and Nelson say that it is common in the wooded parts of Alaska, straggling northward into the tundra.

Several sharp-shinned hawks were seen about our winter quarters on the Kowak, Kotzebue Sound, Alaska, the last week in August. (*Grinnell.*)

BREEDING NOTES.—In the vicinity of Ottawa this species generally builds about the end of May or first of June in a hemlock tree about 20 feet from the ground. The nest is made of dry sticks lined with some kind of soft bark and nearly resembles a crow's nest. The eggs, four or five in number, are white with a slight purplish tint marked with splashes of various shades of brown. (*G. R. White.*) This species breeds, in small numbers only, in the vicinity of London, Ont. The nest is usually in pine trees and the eggs four to six. (*W. E. Saunders.*) A nest of this species was taken at the corner of Dow's swamp near the canal close to the city of Ottawa, July 6, 1900. It was in a balsam fir about fifteen feet from the ground, built of sticks and lined with cedar bark, (*Thuya occidentalis*). This species is quite common in Assiniboia, and a number of nests were taken in June, 1895. On June 12th a nest was taken in a willow thicket at the police station, Wood Mountain. It was in the crotch of a willow less than ten feet from the ground, built of sticks and lined inside with finer material of the same character. There were four eggs partly incubated, light greenish in colour and heavily spotted with brown. Another nest in a spruce tree was taken, built of the same class of material, on Farewell Creek, Cypress Hills, June 27th. In this nest the eggs were half incubated. (*Macoun.*) I have clutches of eggs of this little hawk taken near Toronto, also others taken in Muskoka, Manitoba and Assiniboia. It builds its nest in tree tops and lays from four to six handsomely marked eggs. (*W. Raine.*) This bird has always been regarded as a rare summer resident near London, Ont., but during the summer of 1900 six nests were found by three observers and it may prove to be more common than was supposed. Its silent unobtrusive manner may have been its shield from observation. These nests, as well as four others taken in previous years, were all in conifers, five of the ten being in tamarac. All of them were built of twigs and many had a few flakes of bark as a lining. One nest was on an old foundation but all the others were entirely new. In height from the ground they varied from 15 to 30 feet. The birds were in some cases fairly silent and peaceful, and in others very noisy and aggressive, in one case particularly the male would attack a man 100 yards distant, although the nest was not found. All the sets of eggs taken, varying from three to six to the set, are very handsome, particularly one set of six fresh eggs in which the colour of the markings is a very bright reddish brown. (*W. E. Saunders.*)

MUSEUM SPECIMENS.

Seven ; two taken at Ottawa, Ont., by F. A. Saunders, August 2nd, 1890, and September 12th, 1891 ; three at Ottawa by G. R. White in 1884, 1885 and 1888 ; two taken at Chilliwack, B. C., by W. Spreadborough, August 11th and September 7th, 1901.

One set of four eggs, taken at Wood Mountain, Assa., June 12th, 1895. Nest in a small tree about ten feet from the ground.

333. **Cooper's Hawk.**

Accipiter cooperii (BONAP.) GRAY. 1844

This species is either unequally distributed or not readily separated from other species

An uncommon summer migrant in Newfoundland. (*Reeks.*) Very rare in Nova Scotia. Col. Egan procured and mounted one specimen. (*Gilpin.*) Not common at Wolfville, King's Co., N.S.; absent in winter. (*H. Tufts.*) A pair seen in Brackley Point woods, Prince Edward Island. (*Macoun.*) An uncommon summer resident in New Brunswick. (*Chamberlain.*) Common in the Restigouche Valley and sparingly distributed through the whole St. Lawrence Valley and westward throughout Ontario. (*Macoun.*) This species is a summer resident in Manitoba and extends north to the Saskatchewan. (*Thompson-Seton.*) I have a mature bird, taken on April 25th, 1896, at Banff, Alberta. (*J. H. Fleming.*) Apparently rare in the Rocky Mountains. Not common in the Columbia Valley, but was taken at Revelstoke May 5th, 1890, and seen later at Nelson on Kootanie River. (*Macoun.*) Met with, in British Columbia, only at the Ducks, near Kamloops. (*Streator.*) Tolerably common summer resident in the lower Fraser Valley. (*Brooks.*) Found both on Vancouver Island and on the southern mainland east and west of the Coast Range. (*Fannin.*) Distribution general. Breeding at Lake La Hache, B.C., and in the Rocky Mountains at Field. Alt. 7000 feet ; rare. (*Rhoads.*)

BREEDING NOTES.—This species comes early in the spring and leaves late in the autumn. It is far from common and its nest is seldom taken. I have met with the nest twice. First in a small grove in the township of Escott, Leeds Co., May 15th, 1895. This nest was in a tamarac tree (*Larix Americana*) and contained three fresh eggs. The other nest was in the township of Lansdowne, Leeds Co., and contained four fresh eggs on the 8th of May.

On the 1st of May this nest contained one egg. It was built in the crotch of a yellow birch (*Betula lutea*). The eggs are hardly distinguishable from those of the Marsh Harrier. (Rev. C. J. Young.) Not a common bird around London, but breeds sparingly in the western part of Ontario. (W. E. Saunders.)

MUSEUM SPECIMENS.

One specimen purchased with the Holman collection.

One set of eggs, taken at Lansdowne, Leeds Co., Ont., June 1st, 1895, by Rev. C. J. Young. Another of two eggs taken in North Toronto, May 20th, 1889.

334. **American Goshawk.**

Accipiter atricapillus (WILS.) SEEBOHM. 1883.

Taken at York Factory, Hudson Bay, (Dr. R. Bell.) One observed at Seal Lake, Ungava District, July 24th, 1896, and another a short distance above Ungava Bay, August 23rd, the same year. (Spreadborough.) Resident in Ungava District. (Packard.) Settlers report the occurrence of this hawk in Newfoundland. (Reeks.) This is the commonest hawk in Nova Scotia (Downs) and winters, as a pair did at Digby Gut in the winter of 1880. (Gilpin.) Resides in New Brunswick throughout the year and breeds. (Chamberlain.) Common winter visitant in Quebec. (Dionne.) In Ontario this bird is an irregular winter visitor, sometimes appearing in considerable numbers and again being altogether wanting. (McIlwraith.) A tolerably common fall and winter visitant in Manitoba usually appearing in August. Not seen during the breeding season. (Thompson-Seton.) Not observed on the prairie or in the Rocky Mountains nor in southern British Columbia in summer. Not uncommon at Edmonton, Alta., where they were evidently breeding in June, 1897. (Macoun.) Seen only at Vernon in British Columbia. (Rhoads.) Rather common in the interior of British Columbia, the coast bird may be the next species. (Streator.) Has been taken on Vancouver Island and on the mainland east and west of the Coast Range. (Fannin.) Have taken this form both east and west of Coast Range, the only hawk observed in the Cariboo District in winter. (Brooks.)

BREEDING NOTES.—Permanent resident at Scotch Lake, York Co., New Brunswick. Breeds. (W. H. Moore.) Immature

goshawks come regularly to Toronto in the autumn and often remain all winter. Until 1896 full plumaged birds were almost unknown, certainly I was not aware of any records of mature birds for ten or fifteen years previous to that date. In October, 1896, a remarkable migration of mature birds took place. They spread themselves all over Ontario in large numbers, and I believe the New England States were invaded in like manner. I received the first mature bird on October 26th from Toronto, and from then till December the birds continued to come in. The deer hunters reported that the hawks were playing havoc with the partridges and hardly a shooting party returned in November without one or more mature goshawks. I fancy that the sudden inroad of the sharp-tailed grouse into Muskoka and the migration of the goshawks were likely caused by the same necessity—lack of food. Both species appeared in Muskoka together. Never a scarce bird in the districts of Parry Sound and Muskoka; the number of breeding birds has greatly increased since the autumn of 1896. (*J. H. Fleming.*) The only nest I ever saw of this species in Muskoka was in the fork of a large black birch (*Betula lenta*) about 40 feet from the ground. It was made of sticks lined with leaves and clay. In it I found four young ones all differing in size which leads me to think that they are not all hatched at the same time. In the nest I found a blue-jay and hairy woodpecker which had been plucked by the old birds. Beneath a maple log that was lying about 100 yards away from the tree having the nest, and several feet from the ground, I found a large quantity of feathers which the old birds had plucked from barn-yard fowls and other birds. It was evident that the old birds had carried their prey here and picked it before taking it to their young. The nest was within half a mile of Bracebridge and about 300 yards from the south branch of the Muskoka River. They are more plentiful in Muskoka in winter than in summer. (*Spreadborough.*) A not uncommon bird in winter in Ontario but as a rule going north to breed. I found a nest of this species near Otty Lake in the county of Lanark, Ont., in 1885. It was a large structure built in the fork of a beech tree, about 30 feet from the ground, and on the 3rd of May contained three almost bluish white eggs, incubation commenced. In addition to the breeding of this bird in the county of Lanark, Ont., I find that it nested regularly in the township of Oso in Frontenac Co., Ont., up to 1901 but will probably soon

cease to do so as the larger timber is rapidly being cleared away. It seems to affect woods where beech and black birch are plentiful, not far, however, from a growth of evergreens. (Rev. C. J. Young.)

This bird is generally distributed in the forest country north of the prairie. Richardson records it from Jasper House in the Rocky Mountains and describes one shot from the nest on the Saskatchewan, May 8th, 1827. He also speaks of another taken at York Factory, Hudson Bay, Aug. 14th, 1822. Apparently it has the same range yet. (Macoun.) This species is confidently believed to breed, in small numbers however, between Fort Good Hope and the Anderson, Mackenzie District. (Macfarlane.)

I have eggs from Oak Lake and Crescent Lake in Assiniboia and also sets from Alberta. I have a set of two eggs that was taken by Mr. Wenman at Stedman's River, Alberta, the female was shot and is now in my collection. I have another set of three eggs collected by Dr. George in northern Alberta, May 10th, 1894. The female of this nest was also shot by Mr. Wenman. Dr. George also took a clutch of four eggs out of this same wood in May, 1893. It makes a large nest of sticks, weeds and roots and builds in the highest tree tops. The American Goshawk is a rare summer resident in northern Manitoba, but is more plentiful in northern Assiniboia and Alberta. The eggs are bluish white, unmarked, although they are sometimes nest-stained. (W. Raine.)

MUSEUM SPECIMENS.

Two; one purchased with the Holman collection, and the other taken at Toronto, Ont., in 1885 by Samuel Herring.

A set of two eggs taken at Great Whale River, Hudson Bay, June 18th, 1896, by W. Spreadborough. Nest built on top of a large tamarac, which was nearly two feet across. It was made of tamarac branches and lined with a couple of green spruce branches and a few ptarmigan feathers. A nest taken at Fort Saskatchewan, Alta., contained three eggs. Nest in spruce tree about fifteen feet from the ground; it was built of sticks and lined with weeds.

334a. **Western Goshawk.**

Accipiter atricapillus striatulus RIDGW. 1885.

Tolerably common throughout British Columbia. More abundant west of the Coast Range. (Fannin.) One seen at Sooke,

Vancouver Island, Aug. 2nd, 1893. (*Spreadborough.*) This seems to be the form that breeds in southern British Columbia, where I have noticed it in summer as far east as Arrow Lakes, Columbia River, in Lat. 50°. (*Brooks.*)

CXXIV. **BUTEO** CUVIER. 1779-1800.

337. **Red-tailed Hawk.**

Buteo borealis (GMEL.) VIEILL. 1816.

We have no records of this species being seen in the District of Ungava (Labrador), but it breeds in Newfoundland, Nova Scotia, Prince Edward Island, New Brunswick, Quebec and Ontario. Mr. Spreadborough saw three specimens on Moose River, near James Bay, June 6th, 1896, and Dr. Bell took it at Fort Churchill, Hudson Bay. This species is abundant in the wooded portions of Manitoba, especially in the Riding Mountains, Duck Mountains, Porcupine Hills and northward to the Saskatchewan. Westward, Spreadborough found it nesting at Indian Head in Assiniboia, and at Edmonton, Alta., and along the foothills to Crow's Nest Pass, but not being a prairie species it disappears with the wood. I agree fully with Thompson-Seton in his "Birds of Manitoba," when he says on page 529: "This species seems to be the complement of Swainson's Hawk in Manitoba, adhering to the forest regions, while the latter is found only in the more open places. The differences of habit presented by these two species are slight but quite appreciable." As no specimens of Krider's Hawk have been recorded from southern Manitoba all the eastern prairie region and the northern forest up to Lat. 60° are included in the range of the Red-tail.

This species is common in the Northwest Territories which it visits in summer. Specimens were shot in the Rocky Mountains, on the plains of the Saskatchewan, and at York Factory, Hudson Bay between Lat. 53° and 57°. (*Richardson.*) This species is far outnumbered at London, Ont., by the Red-shouldered Hawk. More common in the more remote districts. (*W. E. Saunders.*)

BREEDING NOTES.—This is a rare bird along the St. Lawrence. In eleven years I am only certain of having seen one specimen. In the counties of Lanark and Renfrew it is common and I used to see it every year. Within a few miles of the village of Ren-

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frew it breeds. (*Rev. C. J. Young.*) The red-tail breeds in scattered pairs about one to four of the red-shouldered. It nests a little earlier and lays two to three eggs. (*W. E. Saunders.*) This bird breeds in Welland Co. and throughout southern Ontario. (*W. Raine.*) On May 31st, 1891, I took a nest of this near Indian Head, Assa. The nest contained three eggs and was built of sticks in a dead poplar (*Populus tremuloides*) about 30 feet from the ground. This species feeds chiefly on gophers and mice. At Edmonton, on the North Saskatchewan, in 1897, I observed a number of nests mostly along the river and small streams. These were nearly always in cottonwood trees (*Populus balsamifera*) but I think it is on account of these trees having large branches near the top that they seem to prefer them than from any other cause, as I also observed a few in poplar trees (*Populus tremuloides*) where the branches were suitable for them to build upon. The nests were scarcely ever less than thirty feet from the ground. In the summer of 1891 it was common at Banff and hence breeds there. (*Spreadborough.*)

MUSEUM SPECIMENS.

Four; one purchased with the Holman collection; another taken near Toronto, Ont., by S. Herring; one taken in poplar woods near Fort Pelly, Man., September 3rd, 1881, by the writer, and one at Hyde Park, Ont., by W. E. Saunders.

A nest taken near Edmonton, Alta., by W. Spreadborough, May 17th, 1897, contained two eggs. The nest was in a poplar tree, built of sticks and lined with bark and twigs. Another set taken at Chatham, Ont., on April 30th, 1888, contains two eggs.

337b. **Western Red-tailed Hawk.**

Buteo borealis calurus (CASS.) RIDGW. 1873.

I have obtained from Mr. M. J. Dodds, St. Thomas, Ont., a fine adult of the Western Red-tail, which was killed near there in the fall of 1885, by Mr. John Oxford. This appears to be the first recorded occurrence of this species in Ontario. (*W. E. Saunders* in *The Auk*, Vol. V., 203.) Mr. J. Hughes-Samuel took a specimen of this form at Toronto on November 4, 1895. (*J. H. Fleming.*)

The only known instance of the occurrence of this bird in Alaska is recorded by Dr. Bean, who secured a young bird near Sitka, June 5, 1880. (*Nelson.*) Rare; a few seen at Kamloops

and Ducks in central British Columbia in June, 1889. (*Streator.*) Very abundant east and west of Coast Range. (*Fannin.*) Resident at Chilliwack, B.C., and tolerably common; rather rare in winter at Lake Okanagan. (*Brooks.*)

This species was common at Revelstoke, B.C., in the spring of 1890. First observed on the 9th April, and became common before the end of the month. On 30th May two pairs were found nesting in the cliffs at Deer Park, Arrow Lake, Columbia River, B.C., and a female shot. Another nest was found in a cliff at the mouth of Pass Creek, near Robson, B.C., 1902. A few were seen near the 49th parallel between Trail and Cascade. Seen on Vancouver Island at Victoria, 10th Sept, 1893. (*Spreadborough.*) Distribution and abundance like that of the eastern form. Breeding near the summits of the Rocky Mountains at Field, B.C. (*Rhoads.*)

MUSEUM SPECIMENS.

One specimen taken at Agassiz, B.C., May 17th, 1889, by W. Spreadborough.

339 **Red-shouldered Hawk.**

Buteo lineatus (GMEL.) VIEILL. 1816.

This species may reach Newfoundland occasionally, as it has been taken in northern Nova Scotia. It is rare in New Brunswick, though Chamberlain says it may breed near St. John. In Quebec it becomes more common, and in the St. Lawrence Valley it is far from rare. Quite a common summer resident in Ontario, breeding freely, and extending westward to eastern Manitoba. Our most northern reference is York Factory on Hudson Bay, where it was collected by Dr. R. Bell. This seems to be an eastern species with its centre of distribution in Canada, north of Lake Ontario. It is much more restricted in its range than the Red-tail.

Have met with these birds occasionally in December and January, and know of at least one having been taken in the latter month. On the 8th January, 1900, I saw two. While wintering they seek the shelter of deep ravines. (*J. Hughes-Samuel.*) Our most common hawk in summer at London, Ont. (*W. E. Saunders.*)

BREEDING NOTES.—This species builds about the middle of April. The nest closely resembles a crow's, but is larger and very untidy. It is composed of coarse sticks loosely placed together with fine ones, and lined with bark of a vine (probably grape vine), and pieces of rough bark. The nest is placed near the trunk of the tree at from 20 to 60 feet from the ground. The eggs, three or more in number, are yellowish white, with blotches of yellowish brown and slate. A nest found on 30th April near the mouth of the Gatineau River at Ottawa, Ont., was built in a swamp ash (*Fraxinus sambucifolia*) about 20 feet from the ground. The old bird was sitting at that date. (*G. R. White*)

Strangely enough this is the most common hawk along the St. Lawrence between Kingston and Brockville, though I never saw it in the counties of Renfrew and Lanark. It seems to just take the section of country where the Red-tail is absent. It is an early breeder, returning to the same woods year after year, even though disturbed. It usually builds or repairs a nest in a beech tree, but I have seen nests in maple, ash, oak, pine, elm, and once in a hemlock. The earliest eggs I have seen were a set of four on April 14th, 1898, an unusually early date; the latest was May 23rd. The average time of laying is about April 25th; the favourite tree for nesting, a beech. This bird becomes rare in Eastern Ontario, 15 to 30 miles north of the St. Lawrence, and 50 miles back, is almost unknown, its place seeming to be taken by the Broadwinged Hawk. (*Rev. C. J. Young*.) Rather common, breeding in all suitable woods in the vicinity of London, Ont. (*W. E. Saunders*.)

MUSEUM SPECIMENS.

Three; one purchased with the Holman collection in 1885; two taken at Toronto by Samuel Herring.

A nest taken at Lily Lake, Peterborough Co., 25 miles north of Port Hope, Ont., by Mr. N. H. Meeking, on April 24th, contained four eggs. A set of three eggs was taken in the county of Leeds, Ont., April 21st, 1901, by Rev. C. J. Young. Another set of three taken near London, Ont., by J. E. Keays, April, 17th, 1897.

339b. Red-bellied Hawk.

Buteo lineatus elegans (CASS.) RIDGW. 1874.

Not very common. I have taken it at Burrard Inlet, B.C. Mr. W. B. Anderson found it at Port Simpson, B.C., and Mr. Brooks

at Chilliwack. I have no record from Vancouver Island. (*Fannin*.) Only noticed west of the Coast Range; rare. (*Brooks*.) Hawks, presumably of this species, were thrice seen in the British Columbia interior. (*Rhoads*.)

342. Swainson's Buzzard.

Buteo swainsoni. BONAP. 1838.

Accidental visitant; rare. A few examples of this large hawk have been shot at Montreal, Que. I saw a fine dark specimen which was shot early in the spring of 1894 near the city, and was stuffed by Mr. Bailly, taxidermist. (*Windle*.) Rare around Toronto, Ont. I have two specimens taken at Toronto, Ont., both in the dark plumage. (*J. H. Fleming*.) This species arrives on the southern prairie in March, and soon becomes abundant. It is the characteristic hawk of the prairie, and is found in every part of that extensive region. Although a prairie bird it ranges in the valley of the Mackenzie beyond the Arctic Circle, and has been taken at Nulato on the Yukon. It is very rare in the Rocky Mountains; only one pair was seen in four months residence of Mr. Spreadborough, at Banff, in 1891, and only one, a female, was seen and killed at Revelstoke by him in 1890.

On British Columbia mainland and Vancouver Island. Nowhere common. (*Fannin*.) I once observed a flock of some hundreds, all of the dark phase, at Chilliwack, B.C., and have seen young birds in the autumn; this dark form is a common breeder on all the mountains, at high elevations, being only found in open or park-like country. The only pair of white-breasted birds I ever saw in British Columbia was breeding on a low mountain at Vernon. (*Brooks*.)

BREEDING NOTES.—Thompson-Seton in "Birds of Manitoba," on page 532, says: "The nest of this bird is not peculiar. I have examined about fifty altogether, and have hitherto failed to find one that answers the published descriptions, which credit the bird with using a lining of hair and other fine material. All the nests examined early in the season were merely masses of sticks and twigs, with a slight hollow to contain the eggs, and had no special lining. But nests examined after the growth of leaves—usually about the end of May—were more or less lined with twigs plucked with green leaves on them, and these when slightly wilted readily flatten down and form a wind-proof screen.

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"In general appearance this nest is much like that of the red-tail, but the position is different, being usually less elevated. I have seen many that I could not reach from the ground. The favourite sites are the crown of a dense clump of willows, or the highest fork of a low scrub oak; occasionally I have observed the nest at a height of 20 or even 30 feet, in some poplar, but this is unusual.

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"The eggs are commonly three but sometimes four in number; they are more or less spherical and vary much in colour. The young, when hatched, are the purest and downiest looking of innocents, and it is only on examination of the tiny though promising beak and claws that one can credit that little snowball with the makings of a ruthless and bloodthirsty marauder."

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First seen on April 4th, 1892, at Indian Head, Assa.; common by the 16th. May 25th found a nest with one egg, nest in live poplar, made of sticks, lined with a few twigs from the living poplar trees with the leaves on. All the nests that I saw later were built in the same way and all contained the green twigs and leaves. They invariably repair the old nests and only one new nest was seen during the season. Nests contained 2-4 eggs. Farther west they build their nests chiefly in clumps of willow along the banks of streams and the edges of sloughs and scarcely ever in thick woods. Where there are no willows or trees they will build their nest in a clump of rose bushes or upon a "cut bank" (a cliff of earth by a stream). Their principal food is gophers and mice, of which they kill a great number. They are a great benefit to the farmer but he does not seem to know it, for in southwestern Manitoba last autumn (1891) I counted no less than nine dead buzzards along a trail in less than half a mile. Found two nests in trees at Crane Lake, Assa., in June, 1894. The nests were built of sticks and lined with dried grass. One had two eggs, the other three. I shot one of the old birds as it came from the nest and it proved to be a male showing that both took turns at the nest. This species is a very late breeder and only in one case did I find eggs before the first of June. (*Spread-nogah.*)

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The writer has taken many nests of this species in Assiniboia and has found that a tree is preferred to nest in but that they change the site to agree with changed conditions. Where oak scrub exists they prefer oak, farther west poplar (*Populus tremuloides*) and on treeless plains they descend to low bushes and

last of all cut banks where they often make a bulky nest. In the summer of 1895 nests were taken in box elder (*Negundo aceroides*) on Old Wives' Creek. These were lined with the outer bark of dead trees of this species. Each nest contained only two eggs, both fresh, May 27th and June 1st. A nest was taken at the forks of the creek on June 2nd. This was under a cut bank about six feet below the summit. This nest was lined with green poplar twigs having young leaves. Later, nests were taken at Wood Mountain, Assa., in willow clumps and under banks, and towards the last of the month on the Cypress Hills in choke-cherry bushes. In the Milk River country the nests were chiefly under banks. (*Macoun.*)

In July, 1861, we discovered a nest of this species which was built on a spruce tree along Onion River, the principal tributary of the Lockhart. It contained two well-grown birds. Both parents were about and made a great ado in endeavouring to protect their offspring. The male was shot. In June, 1865, another nest was found on the top crotch of a tall pine in a ravine some 20 miles southeast of Fort Anderson, Lat. $68^{\circ} 30'$. In composition it was similar to the nest of an *Archibuteo*. The female was shot as she left the nest, which contained but one egg in a well developed stage. The male was not seen. (*Macfarlane.*)

This bird breeds commonly throughout Manitoba, Assiniboia and Alberta, seldom having eggs before the third week in May and is, therefore, a late breeder. Between June 5th and 13th, 1901, I examined close upon thirty nests in northern Assiniboia. All these nests just contained three eggs each, no more or no less, showing that three eggs is the number laid. Incubation was advanced at this time but I did not find a single nest containing young. Some of the nests were built in fire-killed willows and so low that I could reach the eggs from the ground. A few nests were in poplars and built from 10 feet to 20 feet from the ground. I never found two pairs of birds occupying the same bluff, and the nests are usually a quarter of a mile from each other. This hawk has a habit of lining its nest with green poplar leaves and the eggs look very pretty lying on the green leaves. It is a most useful bird to the farmer, devouring an immense quantity of gophers and mice. (*W. Raine.*)

MUSEUM SPECIMENS.

Five; one taken in the Moose Mountains, Assa., June, 1880, by the writer. Four others taken at Indian Head, Assa., one in

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September, 1891, and three others in May, 1892, by W. Spreadborough.

One set of two eggs taken at Indian Head, Assa., June 4th, 1892; one of three taken at the eastern end of the Cypress Hills, Assa., June 18th, 1894; three others each containing two eggs taken at 12-Mile Lake, Assa., June 6th, 1895, Wood Mountain, Assa., June 14th, 1895, and on White Mud River, June 22nd, by W. Spreadborough.

343. Broad-winged Hawk.

Buteo platypterus (VIEILL.) FAXON. 1901.

This species probably occurs in Newfoundland. (*Reeks.*) It is very rare in Nova Scotia. (*Downs.*) A rather rare summer resident in New Brunswick, but increasingly common as we go west in the valley of the St. Lawrence. It is found all over Ontario and extends westward to Winnipeg where it breeds. As a straggler it has been seen by Thompson-Seton at Carberry in Manitoba. Sir John Richardson records its occurrence at Moose Factory on James Bay, and in June, 1896, Mr. Spreadborough found it common on Moose River, but none were seen north of Moose Factory. This may be considered the northern limit.

BREEDING NOTES.—I observed three of these hawks, old and young, 24th July, 1887, circling round above Mount Royal Park, Montreal, and heard them uttering a note very much like that of a cowbird. I also saw a pair in the trees near the same place on June 4th of the same year, and probably they bred there. I have observed this species here from March 30th to October 19th. (*Wintle.*) This species breeds about the middle of May, and seems to prefer a hemlock or swamp ash tree to nest in. The nest is placed about 20 feet or more from the ground, is composed of dry sticks and lined with pieces of bark and dead leaves and is rather larger than a crow's. The eggs, two or more in number, are of a dirty yellowish or grayish white with blotches of reddish brown. The species is not rare around Ottawa, Ont. (*G. A. White.*) The writer shot a female of this species as she rose from her nest, which was on a swamp ash in what was then Stewart's Bush within the limits of the city of Ottawa. This was on 24th May, 1884. Since then the city has extended over a mile to the south of this locality and night hawks nest on the roofs of the houses built on the same spot.

This is a hawk whose young are commonly met with near the St. Lawrence in September and October. Only once have I met with its nest there—24th May, 1899. This nest was built against the trunk of a maple and contained two fresh eggs. It is a late breeder, seldom laying before the last week in May, though once I found the eggs earlier. It is the commonest hawk in the county of Renfrew, near the Ottawa River, and is also common in the county of Lanark. Unlike the red-shouldered it is partial to thick swampy woods near creeks and builds its nest more often against the trunk than among the limbs of a tree. I have seen five nests. Four of these were in birch trees and one in a maple. The earliest date for its eggs was 8th May, 1886, and the latest 3rd June, 1888. The average time is about 24th May. The favourite trees selected seem to be black or yellow birch. (*Rev. C. J. Young.*) Common in Parry Sound and Muskoka districts. A large number breed. Found a nest at Emsdale, Parry Sound District, 27th May, 1897; it was apparently an old nest and contained three eggs. It was built about 30 feet from the ground in a birch. (*J. H. Fleming.*) We found this bird nesting at Woodlands, Manitoba, June 11th, 1894. The nest contained two eggs. (*W. Raine.*)

Very common in the woods around Muskoka lakes. Always builds its nest in the large black birch trees. I have never seen one in any other tree and I have taken many nests. The nest is made of sticks lined with leaves and bark. The food of the young appeared to be chiefly frogs. A person will scarcely ever miss seeing one or more sitting upon a stub of a dead tree just above the water in which frogs are plentiful in spring. They also catch mice and a few young birds. On one occasion I saw one carrying a snake more than two feet long. I think that the reason they prefer the birch is on account of thick foliage and the forked nature of the tree near the top, which makes a very suitable place to nest in. I have always found the nests in thick woods and as I have never seen a nest anywhere except in Muskoka they have always been near water as it would be hard to be otherwise. (*Spreadborough.*)

MUSEUM SPECIMENS.

Three; one purchased with the Holman collection in 1885. One taken at Toronto, Ont., by S. Herring, and one taken at London, Ont., by W. E. Saunders, May 3rd, 1884.

CXXV. **ARCHIBUTEO** BREHM. 1828.347. **Rough-legged Hawk.***Archibuteo lagopus* (BRÜNN.) GRAY. 1841.

Several specimens from St. Michael and one obtained by me on Unalaska are indistinguishable from European birds contained in the National Museum collection. On the northern coast of Alaska, including the shore of Behring Sea and the Arctic, and thence in the interior along the entire course of the Yukon, many specimens of the Rough-legged Hawk have been taken, but none from this region are in the melanistic phase so common among birds from the Hudson Bay country. In fact all the specimens from northwestern Alaska appear referable to the Old World form, as certainly are the examples mentioned. (*Nelson.*)

347a. **American Rough-legged Hawk.***Archibuteo lagopus sancti-johannis* (GMEL.) COUES. 1872.

This species is the common hawk of Ungava and the barren grounds extending west from Hudson Bay. It breeds especially in the northern part of its range and eastward to Newfoundland. It is a winter migrant in Nova Scotia and New Brunswick. Mr. Wintle remarks that it is a transient visitor at Montreal especially in November.

A spring and autumn migrant in Ontario. (*McIlwraith.*) A remarkable migration of these hawks took place in October, 1895, and a considerable number was killed at Toronto. The flight was simply enormous. I could have bought over one hundred had they been any use to me. I obtained four or five of the black form. (*J. H. Fleming.*) This bird is far from common in Manitoba, and so far as noted it is found only in the spring and fall. (*Thompson-Seton.*) The only specimens of this bird I have seen west of Manitoba were one taken at Indian Head, Assa., in the spring of 1892, and one observed at Edmonton, Alta., in April, 1897. (*Spreadborough.*) Richardson, Ross and Macfarlane found it in the northern forest in summer but in all my wanderings south of the Saskatchewan or in the mountains I have never met with it. I am led to believe that the following references belong to a race distinct from the eastern bird which seems to have its centre of migration in Ontario. (*Macoun.*)

No examples of this bird were secured by me in northern Alaska, nor have I seen any. Several specimens from Kadiak are the only ones known from Alaska. (*Nelson.*) Both on the mainland and Vancouver Island, B.C. In my experience rare. (*Fannin.*) Tolerably common migrant at Chilliwack, B.C.; rather scarce in the Cariboo district of British Columbia in winter. (*Brooks.*) Sumas and Osoyoos Lake. (*Lord.*) One seen at Vernon and a specimen seen at the same place in the collection of Mr. Pound. Another shot on Vancouver Island is in the possession of Mr. Lindley of Victoria. Considered a very rare bird on the Pacific Coast. (*Rhoads.*)

BREEDING NOTES.—First observed on Hudson Bay north of Great Whale River, 28th June, 1896. It breeds on nearly all the high cliffs all the way across Ungava District from James Bay to Ungava Bay. On 13th July, Mr. Russell found a nest with three eggs, incubation far advanced. I found a nest on a cliff at east end of Seal Lake 3rd August in which the young were about half grown. The nest was a mere mass of sticks lined with dry grass. This is the common large hawk of the country. (*Spreadborough.*)

This form of *A. lagopus* is abundant in the Anderson district as specimens have been obtained from all parts of the surrounding forest to the borders of "the barrens," as well as from the Arctic coast. Over seventy nests were collected during the period of exploration treated of by these notes. About fifty-five of them were built in the crotches of trees not far from the top and at a height of 20 to 30 feet from the ground. They were externally of sticks, twigs and small branches, rather comfortable, lined with hay, mosses, down and feathers. The remaining fifteen were situated near the edge of steep cliffs of shady rock on the face of deep ravines and on declivitous river banks, and these were usually made of willow sticks and twigs, but with a thicker lining of hay, moss and other soft materials. The eggs varied from three to five, never more than the latter number, and their contents were like those of some other birds' eggs gathered by us, in different stages of incubation in the same nest. (*Macfarlane.*)

A rare summer resident in northern Assiniboia and northern Alberta from where I have received both eggs and skins. I have sets of eggs taken by Mr. L. Dicks at Hamilton Inlet, Labrador,

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May 17th, 1897, also sets taken by Mr. Stringer at Mackenzie Bay, Arctic America. (*W. Raine.*)

MUSEUM SPECIMENS.

Three; one purchased with the Holman collection in 1885; two taken near Toronto, Ont., by S. Herring.

A set of three eggs taken at the mouth of Whale River, Hudson Bay, Ungava, by W. Spreadborough, July 13th, 1896. Three other sets of three and one of two taken at Fort Chimo, Ungava, June 20th, 1896, by Mr. G. Bouchier. One nest found on Artillery Lake, north of Great Slave Lake, by Bishop Lofthouse, on June 4th, 1900, contained three eggs.

346. **Ferruginous Rough-legged Hawk.**

Archibuteo ferrugineus (LICHT.) GRAY. 1849.

Apparently rare in Manitoba as Thompson-Seton does not record it in his "Birds of Manitoba." In *The Auk*, Vol. X, 49, however, he states that a fine specimen of this bird is now in the Manitoba Museum, taken by Mr. Hine. Dr. Coues found it breeding in the Pembina Mountains on the International Boundary in July, 1873.

This is not a rare species in the prairie region. In 1895 the writer found it at Old Wives' Creek, Assa. Two nests were taken at this point on 27th May, eggs in one just hatched. The species was seen at Wood Mountain and everywhere on the prairie west to the Cypress Hills and south to Milk River. It was common in the West Butte and along St. Mary River north of the 49th parallel. It seems to be purely a prairie species, not being recorded from the Saskatchewan.

BREEDING NOTES.—A pair was seen at Indian Head, Assa., on 1st May, 1892. On 16th I shot a fine female that had a nest in a dead poplar about 12 feet from the ground. The nest was made of sticks and lined with dry grass and contained five eggs. Another nest in live poplar had the same number of eggs and was lined with the inner bark of dead poplar. This bird was tolerably common all summer. In May and June, 1894, a number of nests were found in box elder (*Negundo aceroides*) at Medicine Hat, Crane Lake, and along Skull Creek, and in the Cypress Hills. In the summer of 1895, they were found breeding in the same

situation. I have found their nests in poplar, cottonwood, box elder, upon "cut banks" (clay cliffs) of streams, and upon clay domes in the "bad lands" south of Wood Mountain. In the spring of 1894 one pair built a nest upon the tower of a windmill at Langevin on the C. P. Ry. west of Medicine Hat. It had to be taken down, however, as it interfered with the working of the mill. The highest nest I have seen was not more than 30 feet from the ground. Nests were always near water, but I think that this is more because the cut banks and trees are usually along the streams and not for any preference that they have for it. On 11th June, 1894, took two nests at Crane Lake, Assa. Both contained young ones. The nests were very large. One was built of sticks and cow dung lined with dry grass; the other of sticks alone lined with dry grass. The young are white when first hatched. Their chief food is gophers, of which I have seen a number in the nests, as well as at the foot of the tree or bank where the nest was. (*Spreadborough.*)

This species builds a very large nest and seems to prefer the old one to a new structure. All the nests seen were composed of large sticks for the body of the nest, then the droppings of horses and cattle to consolidate the margins, and lastly lined inside with the inner bark of dead box elder and poplar. Two nests were taken on 27th May, 1895, each had three eggs originally, but in one the young were just hatched. Each nest was in the fork of a box elder about 10 feet from the ground. (*Macoun.*)

I have examined about a dozen nests of this bird in northern Assiniboia. It is an early breeder, laying its eggs early in May, and building a very large nest in the highest trees it can find. It lays from three to five handsomely marked eggs. Most of the nests I have examined contained dead gophers, proving that this is another useful hawk to the farmer. (*W. Raine.*)

MUSEUM SPECIMENS.

Two; a male and a female. The latter was taken at Indian Head, Assa., in May, 1892, by W. Spreadborough. The male was taken on the Cypress Hills, Assa., by the writer, Aug. 2nd, 1880.

A set of three eggs taken at Indian Head, Assa., in May, 1892; and another of three taken at Old Wives' Creek, Assa., June 26th, 1895, by W. Spreadborough.

CXXVI. **AQUILA** BRISSON. 1760.349. **Golden Eagle.***Aquila chrysaetos* (LINN.) DUMONT. 1816.

Specimens procured in the Ungava District. Breeds in the northeast portions among the hills. A pair also breed at the "Forks" in the Ungava District. (*Packard*.) Saw what I took to be an example of this species near the "Forks" above Ungava. While at Fort Chimo, September, 1896, saw the skin of one that the Indians had shot a few days before on the river. (*Spreadborough*.) Not a common bird in Nova Scotia, but breeds there and resides throughout the year. (*Gilpin*.) Only one specimen known to have been taken in New Brunswick. (*Chamberlain*.) Taken at Beauport; a summer resident in Quebec. (*Dionne*.) "Transient visitant" at Montreal; rare. Saw a fine specimen of this eagle in the Bonsecours market in the month of May, 1891. It was evidently shot near Montreal. (*Wintle*.)

A female was shot 30th October, 1883, at Casselman, near Ottawa, Ont., by Mr. J. S. Casselman, and another was seen near the same place shortly afterwards. (*Ottawa Naturalist*, Vol. V.) It breeds in the Laurentian Hills. (*G. R. White*.) Breeds in the rugged hills of eastern Canada, and is frequently taken at Hamilton and Toronto, but chiefly young birds. (*McIlwraith*.) A golden eagle was killed at Toronto, Ont., on October, 24th, 1896. The only record in many years. I received a golden eagle shot at Loring, Ont., about the first of March, 1897. One was killed at Lake Scugog, Ont., on October 20th, 1897. I received two females from Dunchurch, shot in March, 1898 and three more from Loring, two females and a male. It is a remarkable fact that till 1896 I had not met with a single golden eagle from Parry Sound. Bald eagles always abundant but no golden eagles. (*J. H. Fleming*.) Very rare in Manitoba. Possibly resident. (*Thompson-Seton*.) A rare species in Assiniboia, but was seen in the "bad lands" south of Wood Mountain in June, 1895, and in July of the same year on the West Butte and at "Writing on Stone" on the Milk River. Mr. Spreadborough believed it was breeding in the above locality. (*Macoun*.)

This powerful bird breeds in the recesses of the sub-alpine country which skirts the Rocky Mountains and is seldom seen farther to the eastward. (*Richardson*.) Extends north in the

Mackenzie valley to the Arctic coast. (*Ross.*) Throughout a large portion of Alaska, especially that part which is more or less heavily wooded and interspersed with mountains, the golden eagle is found. The Point Barrow party secured a single specimen taken by the natives east of Colville River. It extends its range west along the Aleutian chain, having been obtained by Dall on Unga Island, who mentions it as a common resident on the Aleutian chain as far west as Unalaska. (*Nelson.*)

The golden eagle is not rare in the vicinity of St. Michael. It is more frequently seen further north in the vicinity of Norton Bay, and in the hills back of Pastolik than on St. Michael Island. On the Aleutian Islands it is quite a common bird. At Unalaska they are fully as common as the bald eagle, and are reported to breed in March on the high bluffs on Makushin Point. (*Turner.*) The whole of British Columbia, but chiefly east of the Coast Range, where it is a resident; rarely west to Vancouver Island. (*Fannin.*) Resident but not common in the Lower Fraser valley. Not common in winter in the Cariboo district, B. C.; also in the winter at Lake Okanagan, B.C. (*Brooks.*) Rare in British Columbia. A few specimens seen around the higher mountains at Ducks and Kamloops. (*Streator.*) Seen two or three times on the interior mountains. As rare in British Columbia as on the Atlantic seaboard. (*Rhoads.*)

BREEDING NOTES.—From various points along the valley of Anderson River Lat. 68° — $69^{\circ}30'$ to its outlet in Liverpool Bay and from the mouth of the Wilmot Horton in Franklin Bay, an aggregate of twelve nests of this eagle was obtained by us in the course of the seasons from 1862 to 1865, inclusive. Ten of this number were built against the face of steep and almost inaccessible banks of shale or earth at a height of 70 to 80 feet, and from 20 to 30 feet below the summit. One thus examined, in 1864 was found to be of considerable size; it was composed of a large platform of built-up twigs and sticks, having a bed of hay, moss, and feathers in the centre, and, as this and other similarly constructed nests appeared to be annually renovated prior to reoccupation, they must ultimately assume vast proportions. Pillaged nests are, however, frequently deserted for a period, but in one instance where the female had been snared upon her nest and the eggs taken it was found occupied the following season probably by the widowed male and another mate. In two instances only were the

nests constructed near the top of tall spruce trees; the sandy nature of the soil in their vicinity was not favourable to building on cliffs. (*Macfarlane.*)

In the spring of 1891 Mr. Hine of Winnipeg found this noble bird breeding in a cliff on the Winnipeg River. In June, 1893, I saw a golden eagle at Morley in Alberta and was informed a pair nested in the Rocky Mountain foothills. My collection contains 36 eggs of this eagle collected in California and Montana. It lays 2 eggs, sometimes 3, and some are very heavily marked like buzzard's eggs. (*W. Raine.*)

MUSEUM SPECIMENS

Four fine specimens from various parts of Canada.

CXXVII. *HALIÆTUS* SAVIGNY 1809.351. **Gray Sea Eagle.**

Haliæetus albicilla (LINN.) LEACH 1816

General in Greenland; has been taken in many places. (*Herluf Winge.*) Inhabits generally and breeds in the whole of Danish Greenland, including the eastern coast. Its northern range not as yet determined. (*Arct. Man.*) A common resident at Ivigtut, Greenland, and breeds there; more common in winter. (*Hagerup.*)

BREEDING NOTES.—At Ivigtut, Greenland, Mr. Hagerup, obtained a clutch of eggs on May 15th that had been taken from the nest two weeks previously; they had been sat upon about one week. On June 10th another clutch was secured that had been taken about two weeks before, and these were almost wholly incubated. It is noted that nests with fresh eggs can be found in April. (*Chambers*, *The Auk*, Vol. VI., 292.)

I have a set of three eggs taken at Godthaab, Greenland, April 20th, 1898; the nest was built on the ledge of a sea cliff. I have another set of two eggs taken in South Greenland, June 15th, 1890. (*W. Raine.*)

352. **BALD EAGLE.**

Haliæetus leucocephalus alascanus C. H. TOWNSEND. 1899.

A pair of this species was seen on August 17th, 1896, by Mr. A. P. Low near Ungava Bay. Though far from common, it breeds in suitable situations in Newfoundland, Nova Scotia, New Bruns-

wick, Quebec, Ontario, Manitoba, and westward to the Pacific. In its northern range in the Mackenzie River valley it descends to the Arctic coast. It is extremely common on the coasts of British Columbia and very common in the interior of the province. Passing to the north it becomes still more abundant on the Aleutian Islands.

While collecting on the Bay of Chaleurs at Port Daniels near Gaspé in August, 1882, I amused myself watching a fish hawk trying to supply its young with flat fish caught in the shallow waters of the bay. At some distance from the shore on the margin of the forest were a series of large trees that had been killed by fire. In a tall one of these an eagle usually stationed himself and kept an eye on the hawk. As soon as the hawk caught a fish the eagle would move out in pursuit and then would commence a series of gyrations by both birds. The aim of the eagle was to get above the hawk and if he failed to accomplish this the hawk won. If the hawk was beaten the eagle would come down on him, the fish was dropped, the eagle caught it and each would sail away, the eagle to the forest, the hawk to the sea. Day after day this performance was repeated and the hawk's nest was located but that of the eagle was not seen.

In June, 1893, the writer was collecting at Comox, Vancouver Island, and observed the same thing to a less extent, but besides getting a supply from the hawks the eagle fished for himself. Not by diving, however, but by going to stony flats at Cape Lazo and fishing for himself. Shallow pools were left when the tide was out and in them numerous small fish chiefly under stones. We had been collecting seaweeds and small fish and a "singing fish", we were told, was found there. This fish certainly made a booming noise and guided us to its retreat, and numerous specimens were collected. The eagle seemed to be guided by the sound for he, too, obtained specimens under our very eyes. All my observations are against this form killing birds. I have seen him catch snakes and fish, steal fish from the fish hawk and eat carrion, but beyond that I never saw him go. All observers report this species as breeding near water and it seems to know that it is an advantage to build its nest as near the food supply as possible.

BREEDING NOTES.—This bird is fast becoming scarce in eastern Ontario. Up to the year 1895 there was a nest every year in

a tall pine about seven miles east of Gananoque and a mile from the St. Lawrence. There is still (1901) a nest every year near Charleston Lake, about 10 miles from Lansdowne. It also breeds on Simcoe Island, opposite Kingston, Ont. I was present at the taking of its eggs on 28th April 1900, two in number and almost ready to hatch. As the seventy acres of woodland in which this nest is situated are being cleared of timber it is probable that the bird will shortly be banished from this locality, but it still nests undisturbed on the Duck Islands and Timber Island, Lake Ontario. (*Rev. C. J. Young.*)

This species nests regularly, though rarely, along the shores of Lake Erie, and along other large bodies of water in Ontario where the country is not too thickly settled, but I have never heard of nor seen it breeding away from the water. (*W. E. Saunders.*) At Shuswap Lake, British Columbia, in July, 1889, I saw a nest in a large cottonwood tree about forty feet from the ground, near the shore of the lake. Nest very large, made of sticks and must have been three feet in diameter. The young were as large at this time as old birds. The young feed a good deal on dead fish that float ashore and also upon carrion. Common throughout Vancouver Island. At Comox shot many specimens both young and old. At this time, June, 1893, they were feeding on the singing fish which they caught from under stones when the tide was out. (*Spreadborough.*)

Several nests were found with eggs and young in them on Lockhart and Anderson rivers. They were built on high trees close to the river banks and composed of dried sticks and branches lined with deer hair, mosses, hay and other soft materials. There were from two to three eggs in each nest. In one instance the parents made hostile demonstrations when their nests were being robbed, but they generally flew away and kept at a safe distance. They are not very numerous, and it is very doubtful if any breed to the northward of Fort Anderson. Lat. $69^{\circ} 30'$. (*Macfarlane.*)

This bird nests in Muskoka and in northern Alberta. I have six clutches of eggs, some of which were taken in northern Ontario and the others in northern Alberta. (*W. Raine.*) May 16th, 1897, a set of two partly incubated eggs was taken from a nest on Raza Island, Toba Inlet, Gulf of Georgia, B.C., by Charles Collier. The nest was in a tree about 90 feet from the ground. It was at least 4 feet across and built of sticks. In the middle on

he level top there was an inner nest about 16 inches across with a slight depression in the centre where the two eggs lay. The inner nest was almost entirely composed of moss. (*W. Harvey.*)

MUSEUM SPECIMENS.

Two mature birds. One set of eggs taken at Sheet Harbour near Halifax, Nova Scotia, and another set of two taken on an island in the Gulf of Georgia, British Columbia, by W. Harvey.

CXXVIII. **FALCO** LINNÆUS. 1758.

353. **White Gyrfalcon.**

Falco islandus BRÜNN. 1764.

Common in Greenland. (*Herluf Winge.*) In summer more common in the northern inspectorate of Greenland than in the southern, but occurring according to Dr. Finsch also on the eastern coast. The limits of its breeding-range in either direction have not been determined (*Arctic Manual.*) Common at Ivigtut. (*Hagerup.*) Taken at McCormack Bay, and at Disco Island, Greenland, by the Peary and Relief expeditions. (*Witmer Stone.*) Common at Fort Chimo and east coast of Labrador. Resident in northern portions, breeds at Fort Chimo. (*Packard.*) Pretty regular in its fall migrations but does not breed in Newfoundland. (*Reeks.*) A casual visitor to Nova Scotia. (*Downs.*) Occasionally seen in New Brunswick. (*Chamberlain.*) Two specimens killed at Port Burwell, Hudson Strait, July, 1884. (*Dr. R. Bell.*) A very fine male of this species was shot at Point des Monts, eastern Quebec, and another seen in the spring of 1885 by Mr. N. A. Comeau. (*The Auk*, Vol. II, 315.) We have received a specimen of this species from Ungava Bay, Ungava District, shot by Mr. Thomas Mackenzie in 1890. (*J. A. H. Brown* in *The Auk*, Vol. VIII, 236.)

"Accidental visitant;" rare at Montreal. Mr. Kuetzing says he has purchased four examples of this species in the Bonsecours market. I have not heard of any gyrfalcons occurring here in recent years. (*Wintle.*) A very rare visitor at Ottawa, Ont.; one fine specimen taken. (*G. R. White.*) The gyrfalcon is a constant resident in the Hudson Bay territories, where it is known by the name of the "Speckled Partridge Hawk" or by that of the "Winterer." I have ascertained that it is occasionally seen as far south as Lat.

52'. It is found northward to the coast of the Arctic Sea, and probably in the most northern Georgian Islands; it is a well-known inhabitant of Iceland and Captain Sabine observed it on the west coast of Greenland, as high as Lat. 74°. (*Richardson.*)

During my residence in the north I secured only a single specimen of this bird, an Eskimo skin taken at Cape Darby on the Alaskan shore of Behring Strait. (*Nelson.*) A single specimen of this species was killed at St. Michael, 15th May, 1877. It is not a common bird in this vicinity, and oftener seen in spring than at other seasons. (*Turner.*)

MUSEUM SPECIMENS.

Three fine specimens, all procured at Fort Churchill, Hudson Bay, by Dr. R. Bell.

354. **Gray Gyrfalcon.**

Falco rusticolus LINN. 1758.

The darker form of Great Northern Falcon, by some held to be distinct both from *F. islandus* and *F. gyrfalco*. The northern limits of its breeding range have not yet been determined. A young male falcon killed 24th September, 1872, on the Fiskenæs, referred by Dr. Finsch to *F. gyrfalco* probably belonged to this form. (*Arct. Man.*) Common in north Greenland. (*Herluf Winge.*) Winter specimens only obtained at Fort Chimo. Not known to breed in the Ungava District. (*Packard.*) Common resident in Greenland and breeding at Ivigtut. (*Hagerup.*) Probably occurs in Newfoundland. (*Reeks.*)

Casual. One specimen of this species was shot by Mr. E. White on the banks of the Rideau, below Cummings' Bridge, Ottawa, on 3rd December, 1890; another was shot by G. R. White some years before. (*Ottawa Naturalist*, Vol. V.) Since the year 1885, I have received over 30 sets of the eggs of this fine bird from Iceland. It lays from 3 to 4 handsome eggs, making a slight nest on ledges of the sea cliff. (*W. Raine.*)

354a. **Gyrfalcon.**

Falco rusticolus gyrfalco (LINN.) STEJN. 1885.

There is no doubt but that this form was included in *F. islandus* by Sir John Richardson as he found the birds nesting not far from where Macfarlane found this species 40 years later.

Seen from 6th to 20th September, 1884, flying south at Prince of Wales Sound, Hudson Strait. (*Payne.*) Taken at Fort Churchill, west side of Hudson Bay. (*Clarke.*) York Factory, Hudson Bay. (*Dr. R. Bell.*) One specimen taken at Disco, Greenland, 1891. (*Witmer Stone.*)

Throughout all Alaska, from the Aleutian Islands north, both along the coast and through the interior, extending from Behring Strait across the northern portion of British America, the present falcon is the commonest bird of prey. It frequents the vicinity of cliffs and rocky points about the sea coast, or the rocky ravines of the interior during the breeding season, and the remainder of the year, especially in the fall, it is found wandering over the country everywhere that food can be obtained. (*Nelson.*) Several specimens of this gyrfalcon were obtained in the vicinity of St. Michael, where it is a constant resident, with probably exceptions during protracted periods of very severe weather. The natives assert that this bird breeds on the high hills, either on a rocky ledge or on the moss-covered ground. (*Turner.*) The only hawk obtained at Point Barrow was of this variety. Hawks were seen in 1882 and 1883, but were always very wild and difficult to approach. (*Murdoch.*) Observed numerous individuals along the Kowak, Kotzebue Sound, Alaska, during 1899. (*Grinnell.*) Two specimens taken at Point Barrow, Arctic Sea, Alaska, September, 1897. (*Witmer Stone.*) A regular though scarce fall and spring visitor at Chilliwick. (*Brooks.*)

BREEDING NOTES.—This gyrfalcon is common in the wooded country on both sides of the Anderson River. Over 20 nests were secured, and with only two exceptions which were built one on a ledge of rocks and the other against the side of a deep ravine, they were found close to or near the top of the tallest trees in the neighbourhood. They are similar in composition, but smaller in size than those of the bald eagle; and while the number of eggs was either three or four, their contents were frequently found in different stages of development. The earliest date for finding a nest was May 10th. The eggs were quite fresh, though one taken five days later contained partially formed embryos. In a few cases young birds were in the same nest along with the eggs, the contents of which were but little changed, and in another an egg perfectly fresh was found with several ready to hatch. This falcon is supposed to be a "winterer" in the northern parts of

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Canada where its prey is said to consist chiefly of ptarmigan. The allied *F. rusticolus* or probably *F. islandus* breeds in small numbers in the same region, as the Indians often spoke of a large hawk, twice observed by myself, which had successfully eluded all attempts to capture itself or its eggs. (*Macfarlane.*)

8546. Black Gyrfalcon.

Falco rusticolus obsoletus (GMEL.) STEJN. 1885.

Abundant at Fort Chimo, Ungava Bay. Eggs obtained 24th May. Very rare in winter. (*Packard.*) Rare at Port Manvers, Labrador; one taken 1901. (*Bigelow.*) One specimen was taken at Long Island, King's Co., N.S., Jan. 8th, 1898. (*H. Tufts.*) A number of individuals of this species have been taken at Godbout, on the Lower St. Lawrence, by Mr. Comeau, and I have known two individuals to be taken at Quebec. (*Dionne.*) This species was common in the river below Fort Chimo, Ungava Bay, September 18th, 1896. (*Spreadborough.*) I have a specimen taken on the St. Clair Flats, Ont., some years ago. (*J. H. Fleming.*) Thompson-Seton, in his "Birds of Manitoba," doubtfully refers this bird to that province as a winter visitor. Later, in *The Auk*, Vol. X, p. 49, he says: "Since I wrote the 'Birds of Manitoba,' two fine specimens have been taken, and are now in the Manitoba Museum." In the opinion of the writer his quotations from Hearne and Hutchins refer to the preceding subspecies and not to this one.

For the nesting of this bird see Bendire's "Life Histories of North American Birds," Vol. I, p. 286.

In 1896 Mr. John Burton, of Hamilton, presented me with a skin of this bird which he obtained at Long Point, Lake Erie, in the fall of 1893. This is the only record of this bird occurring in Ontario. Mr. McIlwraith, of Hamilton, in his work, "Birds of Ontario," has no record of this bird, although at the time he wrote his book there was the above skin at the home of Mr. Burton in Hamilton. This skin is now in the possession of Mr. Fleming, of Toronto, whose collection is rich in rare Ontario birds. (*W. Raine.*)

MUSEUM SPECIMENS.

One set of three eggs taken at Fort Chimo, Ungava, June, 1897, by G. Bouchier.

355. **Prairie Falcon.***Falco mexicanus*, SCHLEG. 1841.

The first time the writer observed this species was in September, 1885, at Rush Lake, Assa., on the line of the C. P. Ry. There were a number of them and they seemed to be quite tame. Each telegraph pole was occupied, and as the bird was new to me I shot one. For years after this I saw no more, but in the spring of 1892 Mr. Spreadborough shot one at Indian Head, Assa. In the summer of 1895 none was seen on a traverse of 600 miles or until we reached the West Butte. At the police station named Pend d'Orielle, on the Milk River, they were numerous and doubtless they bred there.

One specimen was taken at Deer Park, Columbia River, B.C., June 9, 1890. (*Spreadborough.*) Formerly a regular fall and winter visitor and may breed in the mountains in the lower Fraser Valley, B.C. (*Brooks.*) Taken at Comox, Vancouver Island, December, 1894, by Mr. W. Harvey. (*Fannin.*)

BREEDING NOTES.—At one of our astronomical stations, on the west branch of the "Two Forks" of Milk River no less than four species of large hawks had their nests within sight of each other, and only a few hundred yards apart. These were Swainson's and the Ferruginous buzzards, the common falcon and the present species. * * * The nest to which I now refer was discovered 18th July, 1874, on the perpendicular face of the "cut bank" of the stream. It contained three young scarcely able to fly. Two of these were shot on the wing close to the nest, and the third was brought to me alive by a soldier. This nest was built behind an upright column of earth, partly washed away from the main embankment, in such a position that no full view of it could be obtained from any accessible standpoint. But it was certainly placed directly on the ground, in a little water-worn hollow of the bank, behind the projecting mound, so that it was almost like a burrow. (*Cones on Birds of Dakota and Montana.*)

I have a set of four eggs taken in southern Alberta, May 17th, 1897. The nest is merely eggs simply laid on the gravel in a hollow on the high bank of a river. (*W. Raine.*)

MUSEUM SPECIMENS.

Two; one taken at Rush Lake, Assa., by the writer, September 16th, 1885. The other taken at Indian Head, Assa., in September, 1891, by W. Spreadborough.

One set of eggs taken at the Elbow River about 50 miles southwest of Calgary, Alta., by Colonel Windham, May 24th, 1896. Nest very slight, a hollow in the cliff of the river bank.

356. Duck Hawk.

Falco peregrinus anatum (BONAP.) BLASIUS. 1862.

A common species in Greenland. (*Herlut Winge.*) Said to breed generally throughout Greenland, certainly up to Lat. 69° N. and in many of the lands to the westward of Baffin Bay. Examples obtained by Dr. Walker of the "Fox" R. Y. S., at Port Kennedy, Lat. 72° N., are specifically indistinguishable from European specimens. (*Arctic Manual.*) Frequently observed in the vicinity of Ivigtut. (*Hagerup.*) On Marble Island and at York Factory, Hudson Bay, September, 1885. (*Dr. R. Bell.*)

This species is rare in Newfoundland and Nova Scotia as a migrant. Reported to breed in New Brunswick by Chamberlain and known to breed in Quebec and Ontario. Probably breeds in northern Manitoba, but is rare on the prairies. Only three specimens were seen by Mr. Spreadborough at Indian Head, Assa., in the spring of 1892. It is commonly met with in the wooded country north of Lat. 52° in the autumn. It is rare in the mountains as no specimens were ever seen between Calgary and Kamloops, B.C. It is not a rare bird west of the Coast Range and is a resident on Vancouver Island. Apparently common throughout Alaska and breeding.

BREEDING NOTES.—Abundant at Fort Chimo, Ungava Bay, nesting on cliffs. Eggs obtained May 24th. (*Packard.*) Said to breed at St. Martins, on the Bay of Fundy, N.B. (*Chamberlain.*) One old bird and two young ones shot on Marble Island, Hudson Bay, 1st September, 1884. (*Dr. R. Bell.*) Said to nest on the cliffs along the Humber river, Newfoundland. (*L. H. Porter.*)

Yamaska Mountain, at Abbotsford, about 40 miles east of Montreal, has been a breeding place for this species for many years. Mr. Fisk reports that a pair of these hawks had a nest on the west side of the mountain, and he has observed this species there every year for forty years past. He took two eggs of the duck hawk in April, 1891, there, from under a rocky ledge; no material was used for the nest, only a slight hollow scratched out by the hawks under a shelving rock. (*Wintle.*) A pair

nest on Lake Muskoka, Ont., regularly. Mr. Tavernier took a set of four eggs from the nest on 24th May, 1898; it formerly bred on the Bruce Peninsula. (*J. H. Fleming.*) On 15th April, 1894, saw a pair that were breeding in a hole in the high "cut bank" of the Saskatchewan at Medicine Hat, Assa. (*Spreadborough.*)

This falcon constructs no nest whatever so far as I know. It lays its eggs on the most inaccessible ledge of a river cliff of earth or rock. Four is the usual number, and in some instances the eggs were larger than in others. All of the discovered nests were found in the country to the southward of the post, and it is doubtful if they breed much beyond Lat. 68° north. Early in August, for several successive years, young birds of the season, fully fledged, but still attended by their parents, were noticed along the limestone and sandstone banks of the Mackenzie River. (*Macfarlane.*)

This bird breeds rarely in eastern Ontario. I saw it in April, 1899, and the following year. A nest containing four eggs was taken near the Blue Mountain, Leeds Co., Ont., by Mr. W. G. Shelbourne. I visited the locality on the 23rd April, 1901, and saw the birds but they had not yet laid their eggs. The nest was secured later, on the 9th May, and it and the eggs are now in a private collection in Kingston. The nest has also very recently been found in the Muskoka Lake district, and when in Toronto I saw the eggs from there. (*Rev. C. J. Young.*)

I have eight clutches of eggs of this bird, taken in Muskoka and northern Alberta. One set of 4 eggs was collected by P. A. Tavernier, at Muskoka Lake, May 22nd, 1898. The nest was on a ledge of a cliff overhanging the water, 25 feet from the top of the cliff and 70 feet above the water. The nest was only a slight hollow on a ledge 2 feet wide, the half-devoured remains of a ruffed grouse and pileated woodpecker were lying on the ledge near the nest. Mr. Wenman has collected for me two sets of eggs on the banks of Blindman's River, Alberta. There was no nest in either case, the eggs being simply laid on the gravel. A pair nest on Scarboro cliffs seven miles west of Toronto and three miles from my house but the nest is inaccessible. (*W. Raine.*)

MUSEUM SPECIMENS.

Three; two procured at York Factory, Hudson Bay, by Dr. R. Bell. Another taken at Edmonton, Alta., by W. Spreadborough, May 15th, 1897.

One set of 3 eggs taken 8 miles northwest of Red Deer, Alberta, by J. W. Dippie, June 13th, 1896. Two sets of 3 each taken at Fort Chimo, Ungava, by G. Bouchier, in June, 1898; and one egg from Repulse Bay.

356a. **Peale's Falcon.**

Falco peregrinus pealei RIDGW. 1880.

Along the southwestern coast of Alaska from Kadiak to Sitka this dark handsome variety of the duck hawk is found, perhaps entirely replacing its more eastern and northern relative. It has not been recorded from the interior or northern portion of the territory to the north of the Alaskan Mountains; but it is known to extend to the extreme western end of the Aleutian chain. (Nelson.) This falcon was frequently observed on Amchitka Island in the month of June, 1881; and on Attu Island during 1880 and 1881. It breeds on nearly all the islands of the chain, and is a winter resident of the Nearer Group at least. On Agattu it is reported to be very common; and on Amchitka I knew of three nests on the ledges of the high bluffs hanging over the sea. (Turner.) Mainland of British Columbia and on Vancouver Island. Chiefly coastwise. (Fannin.) Mounted specimens of this form were seen in the shop of Mr. Inglis, Vancouver, B.C. (Rhoads.)

357. **Pigeon Hawk.**

Falco columbarius LINN. 1758.

This species was scattered all across the District of Ungava from the mouth of Whale River almost to Fort Chimo in the summer of 1896, and others were taken off Cape Chidley in Hudson Strait. (Spreadborough.) Audubon, Vol. I, 89, states that eggs and nest were found in Labrador about June 1st. Coues met with it (p. 216) on two occasions at Groswater Bay on 5th August and on 25th of same month at Henley Harbour. (Packard.)

This species is more or less common, breeding in suitable places on Newfoundland, Nova Scotia, Prince Edward Island, New Brunswick, Quebec and Ontario. It is also common in the wooded parts of Manitoba, extending north to Fort Churchill on Hudson Bay, where it was taken by Dr. R. Bell. Richardson says it makes its appearance on the coast of Hudson Bay in May about York Factory in Lat. 57°. He also saw what he took to be the

same species at Great Bear Lake in Lat. 66° . This was in the spring of 1825. Ross records it north to Lapierre's House in the valley of the Mackenzie. It is a common species in the wooded portion of Alaska and extends west to Unalaska according to Turner. It descends south into British Columbia east of the Coast Range where it is fairly common though rare on the coast, according to Fannin. A mated pair seen at Lake La Hache, B.C., by Mr. Rhoads.

On the prairie it is seldom seen but one was taken at Medicine Hat in May, 1894, and a pair in the Cypress Hills in the same year. A few were observed on Old Wives' Creek, Assa., in 1895. None were seen in the mountains by Mr. Spreadborough in 1890, 1891, 1897 and 1898, but a pair were found breeding by him in the summer of 1902 at Cascade, B.C., on the 49th parallel, and a nest was taken by him at Edmonton, Alta., in May, 1897.

I found the pigeon hawk quite common during August along the Kowak, Kotzebue Sound, Alaska. (*Grinnell*.)

BREEDING NOTES.—We have few authentic records of the nesting of this bird.

It breeds every year in the Magdalen Islands in the Gulf of St. Lawrence, selecting a thick bushy place. (*Rev. C. J. Young*.) A pair built regularly on an island in Lake Joseph, Muskoka, Ont. (*J. H. Fleming*.) This falcon ranges along the Anderson River almost to the Arctic coast at Liverpool Bay. Several of their nests had apparently been built by them on pine trees, and others on the ledges of shaly cliffs. The former were composed externally of a few dry willow twigs, and internally of withered hay or grass, etc., and the latter had only a very few decayed leaves under the eggs. I would also mention the following interesting circumstance. On May 25th, 1864, a trusty Indian in my employ found a nest placed in the midst of a thick branch of a pine tree at a height of about six feet from the ground. It was rather loosely constructed of a few dry sticks and a small quantity of hay. It then contained two eggs. Both parents were seen, fired at and missed. On the 31st he revisited the nest which still had two eggs, and again missed the birds. Several days latter he made another visit thereto, and to his surprise the eggs and parents had disappeared. His first impression was that some other person had taken them. After looking carefully around he perceived both birds at a short distance and this

led him to institute a search which soon resulted in finding that the eggs must have been removed by the parent birds to the face of a muddy bank at least forty yards distant from the original nest. A few decayed leaves had been placed under them, but nothing else in the way of lining. A third egg had been added in the interim. There can hardly be any doubt of the truth of the foregoing facts. (*Macfarlane*.)

I have sets of eggs taken in Muskoka and southern Labrador, also others from northern Manitoba and northern Assiniboia. One of the sets was taken at Lake St. Joseph, Muskoka, Ontario, by J. D. McMurrick. The nest was built in a tall pine and contained four handsome eggs. (*W. Raine*.)

MUSEUM SPECIMENS.

Four; one taken at Ottawa, Ont., by G. R. White, and one taken at Toronto by S. Herring. Two others were taken by W. Spreadborough, one at Edmonton, Alta., May 6th, 1897, and one at Huntington, B.C., October 10th, 1891.

One set of four eggs taken in Muskoka, Ont., May 24th, 1890. Received from *W. Raine*.

357a. **Black Merlin.**

Falco columbarius suckleyi RIDGW. 1873.

A common summer resident along the coast of British Columbia. Abundant on Vancouver Island. (*Fannin*.) Resident in the Lower Fraser valley; commoner than the pigeon hawk. (*Brooks*.) One seen at Sooke, Vancouver Island, August, 1893. (*Spreadborough*.) Examples seen on the coast should be classed under this name, though Mr. Fannin has both forms west of the Coast Range. A specimen from Victoria is in the collection. (*Rhoads*.)

358. **Richardson's Merlin.**

Falco richardsonii RIDGW. 1870.

One specimen, the only individual of this species observed, was taken on the headwaters of the Mouse (Souris) River (near the International Boundary Lat. 49°), 8th September, 1873. (*Coues*.) One specimen was shot by the writer at "the elbow" of the South Saskatchewan, Assa., 9th September, 1880.

A single pair was seen in the neighbourhood of Carlton House in May, 1827, and the female was shot. In the oviduct there were several full-sized white eggs, clouded at one end with a few bronze-coloured spots. The specimen killed at Carlton House is, beyond doubt, an old female merlin just beginning to have its new feathers. (*Richardson.*) Carlton House was situated about Lat. 53° on the North Saskatchewan about 100 miles north of the Canadian Pacific Railway. Macfarlane had no certainty of the occurrence of this species on the Anderson River and I am inclined to believe that only stragglers reach the North Saskatchewan.

Taken at Chilliwack on the Fraser by Mr. Brooks and near Victoria by Mr. A. H. May. (*Fannin.*) Occurs in migrations only, both east and west of the Coast Range, B.C.; a few individuals seen at Lake Okanagan in the winter of 1897-98. (*Brooks.*) One shot at the head of Lake Okanagan, B.C. (*Rhoads.*)

BREEDING NOTES.—Breeds in Alberta and western Assiniboia. The first authentic set on record is in my collection. It was taken by Mr. Roy Ivor, south of Moose Jaw, Assa., on May 20th, 1893. The nest containing four eggs was made of sticks and weeds and built in a poplar tree-top. The next set recorded was found by J. E. Houseman at Calgary, Alberta, May 12th, 1894. Mr. Houseman kindly sent me these eggs to make drawings of some time after he collected them. It is a handsome clutch and is now in the collection of Mr. Crandell. Mr. Dippie has also taken eggs, young birds and parents near Calgary. A handsome set in my cabinet was taken at Fort Saskatchewan, May 17th, 1899, showing this bird usually has eggs by the middle of May. It is rather singular that there is no record of the nesting habits of this bird in Bendire's "Life Histories of N. A. Birds," probably on account of the author having such a vague knowledge of the birds nesting in northwest Canada. (*W. Raine.*)

358.1. **Merlin.**

Falco merillus (GERINL.) OBERHOLSER. 1899.

A specimen caught at sea, Lat. $57^{\circ} 41' N.$, Long. $35^{\circ} 23' W.$, in May, 1867, by Mr. E. Whymper, and by him presented to the Norfolk and Norwich Museum, seems to have reached the most western limit of the species known. (*Arctic Manual.*) A speci-

men of this species was shot at Cape Farewell, Greenland, on 3rd May, 1875, which is now in the collection of the Public Museum at Milwaukee, Wisconsin. (*Bendire*, Vol. I., 304.)

359.1. **Kestrel.**

Falco tinnunculus, LINN. 1758.

One said to have flown on board ship off Cape Farewell, south of Greenland, on Parry's first return voyage, and killed. (*Arctic Manual*.)

360. **American Sparrow Hawk.**

Falco sparverius, LINN. 1858.

Dr. Coues saw a single individual of this species in Labrador. It is not rare in Newfoundland, and breeds in Nova Scotia, Prince Edward Island, New Brunswick, Quebec and Ontario. By many observers its occurrence in small numbers and breeding is recorded. Dr. R. Bell took a male at York Factory, Hudson Bay. Thompson-Seton shows the species to be very plentiful in Manitoba, and the writer's own observations and those of Mr. Spreadborough give the same result for the whole prairie region including Assiniboia and Alberta. It is a common species in the valleys of the Rocky Mountains at Banff and westward. Abundant at Revelstoke, on the Columbia, where it was first seen in 1890, on April 9th. Later it became quite plentiful and was abundant down the Columbia to Robson. This species is abundant westward through British Columbia, but doubtless becomes mixed with the desert sparrow hawk in the country around Lake Okanagan. Mr. Fannin reports it common on the coast and Vancouver Island.

Richardson places its northern limit in Lat. 54°, but Ross found it as far north in the Mackenzie River valley as Lapierre's House, though rather rare. In Alaska it is very rare, as Nelson says only one specimen was known until Krause found them numerous on Chilcat River near the end of August.

BREEDING NOTES.—This is the commonest of our small hawks and breeds every year in suitable places in eastern Ontario. It selects a hole, usually a flicker's, in a dead pine or some other tree, and lays its eggs about 15th May. I have seen the young able to fly in July. (*Rev. C. J. Young*.) Breeds in Toronto, Ont., and around the city, as well as in the Parry Sound District.

(*J. H. Fleming.*) This bird seems to prefer holes in trees, the old nests of the flicker are probably the ones used. The eggs, five in number, are of a buff or pale yellowish brown, with splashes of dark brown all over, but most numerous at the greater end. About the first week in May, the nest may be looked for in the neighbourhood of Ottawa. (*G. R. White.*) Breeds always in cavities in trees—eggs 4-6. (*W. E. Saunders.*)

This species was first seen in 1892 at Indian Head, Assa., on 16th April, and was common by the 24th. It breeds in the woods and in trees in the stream valleys. A nest was found in an old flicker's nest in a poplar, June 5th; it contained five eggs. In April, 1894, it began to breed on the 17th in holes in poplars. On the 27th May, 1895, a nest was discovered in a flicker's hole in a box elder tree on Old Wives' Creek, Assa. The female sat so close that she had to be shoved with a stick before she would move. The nest contained five eggs of a deep cinnamon buff, but becoming brown or cinnamon at the larger end. This species is also common on Vancouver Island, always breeding in holes. It feeds upon mice, young birds, grasshoppers and other insects and on one occasion I saw one catch a small snake. I have seen nests from 60 to 70 feet above the ground. (*Spreadborough.*) It breeds in the interior at least as far north as Fort Rae, Great Slave Lake, in Lat. 62° N. (*Bendire*, Vol. I., 309).

MUSEUM SPECIMENS.

Fourteen; of these two were taken at Toronto, Ont., by S. Herring; two at Ottawa by F. A. Saunders; the others by W. Spreadborough at Indian Head, Assa., Banff, Rocky Mountains, and Revelstoke on the Columbia River, B.C.

A set of five eggs taken near Edmonton, Alta., May 31st, 1893; another set taken on Old Wives' Creek, Assa., by W. Spreadborough, May 27th, 1895.

380a. Desert Sparrow Hawk.

Falco sparverius deserticolus MEARNS. 1892.

Near the mouth of Milk River, Montana, June 30th, 1874, collected by Dr. Coues. (*Mearns in The Auk*, Vol. IX, 266.) Abundant resident; Mr. Brewster informs me that my Chilliwack specimens of *sparverius* belong to this form. It is a permanent resident throughout the southern part of British Columbia; a few remain

at Lake Okanagan all winter. (*Brooks.*) Our specimens from Medicine Hat, Assa., from the 49th parallel between Trail and Cascade, B.C., and those taken at Huntington in the Fraser River valley are of this subspecies. (*Macoun.*)

MUSEUM SPECIMENS.

Six ; three taken at Medicine Hat, Assa., two at Cascade, B.C., on the 49th parallel, and one at Huntington in the Fraser River valley on the 49th parallel, all collected by Mr. Spreadborough.

CXXIX. **POLYBORUS** VIEILLOT. 1816.362. **Audubon's Caracara.**

Polyborus cheriway (JACQ.) CAB. 1848.

The occurrence of this species on the north shore of Lake Superior, not far from Port Arthur, on July 18th, 1892, is reported by Mr. George E. Atkinson, to the Natural History Society of Ontario. (*William Brewster* in *The Auk*, Vol. X, 364.)

CXXX. **PANDION** SAVIGNY.364. **American Osprey.**

Pandion haliaëtus carolinensis (GMEL.) RIDGW. 1870.

A single specimen was obtained at Godhavn, Greenland, by Mr. E. Whymper and sent to the Museum at Copenhagen. (*Arctic Manual.*)

This species is a common summer resident and generally distributed along rivers or the borders of lakes, in Newfoundland, Nova Scotia, Prince Edward Island, New Brunswick, Quebec and throughout Ontario. Westward it is found under the same conditions throughout the prairie regions and the mountains to the Pacific coast. Northward it is found in all the forest country and beyond the Arctic Circle in the valley of the Mackenzie. In Alaska, Nelson places its breeding range beyond the Arctic Circle so that it breeds almost throughout its range.

BREEDING NOTES.—About the beginning of May the osprey commences to build. Its nest is built near the top of a tall tree and is apparently occupied year after year by the same birds. Each year a fresh layer of dry sticks is laid on top of the old nest and it soon becomes a very bulky structure. The female lays

two or more eggs. A nest found at Lake of Islands north of Ottawa, Ont., would be nearly six feet across and is apparently made of large sticks, weeds, cornstalks and bark. (*Geo. R. White.*)

This bird is becoming very scarce along the St. Lawrence. During the last ten years I have only seen a few examples. A nest was found on May 23rd, 1900, at Gananoque Lake, built on top of a large broken pine, which contained three eggs. This is the only case I know of its breeding in the County of Leeds, Ont., but I formerly saw its nest frequently in the counties of Lanark and Renfrew, built on the top of pine stubs. (*Rev. C. J. Young.*) Generally distributed in the Muskoka and Parry Sound districts. I met with a nest in the centre of a heronry in Parry Sound. (*J. H. Fleming.*)

Three specimens were observed on Moose River near Moose Factory, James Bay, June 7th, 1896. A pair were breeding in the top of a dead spruce tree. None were observed further north. (*Spreadborough.*) The fish-hawk breeds about four miles up Northwest River above Hudson Bay Company's station, Labrador. (*Packard.*)

An abundant summer resident throughout British Columbia. Its nest is usually on the broken top of a tree, not far from water. (*Fannin.*) Common throughout Vancouver Island. Nest very bulky and generally placed on the broken top of a tall dead tree. I have seen a few nests, however, on living trees. The food of this species consists principally of fish. I have watched them, after flying slowly over a shallow bay, stop and hover for a few seconds, then close their wings and drop like a meteor upon some luckless fish which they seldom fail in catching. On a few occasions I have seen them with snakes. Their nest is a huge heap of sticks, usually placed on the top of a tall stub, scarcely ever less than fifty feet from the ground. (*Spreadborough.*)

Breeds amongst the lakes of Muskoka, Ont. In June, 1893, we shot a specimen at Banff, Rocky Mountains, and Mr. Fear informed me a pair had a nest behind Tunnel Mountain. I have a series of 200 eggs of the osprey and they are the most handsome of all hawk's eggs; this bird usually lays three eggs, but occasionally four. (*W. Raine.*) Almost invariably there is a fish-hawk nesting with the great blue heron at Sydney, Cape Breton Island. At the heronry I visited, the hawks chased the herons

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whenever they came near the nest, but Bayley tells me that the hawks have been with the herons for several years. Later I was told of several former colonies, and in each case a fish-hawk nested among the herons. (*C. R. Harte.*)

MUSEUM SPECIMENS.

Four; these were taken at Billings Bridge, near Ottawa, Ont., at Toronto, and in British Columbia.

A set of three eggs taken at Portland Lake, near Halifax, Nova Scotia, June 14th, 1895; also one taken by A. P. Low on the Upper Hamilton River, Ungava, June 10th, 1894.

FAMILY XXIX. **STRIGIDÆ.** BARN OWLS.CXXXI. **STRIX** LINNÆUS. 1758.385. **American Barn Owl.**

Strix pratincola BONAP. 1838.

Apparently rare in Newfoundland, only one specimen taken. (*Reeks.*) In May, 1882, a specimen was killed by young Mr. Reid, gardener, York St., Hamilton, and in the fall of the same year another was found in an empty out-house near the canal leading to Dundas. Dr. Garnier of Lucknow, Ont., saw one some years ago; and Mr. C. J. Brampton of Sault Ste. Marie reports having seen two at that place. (*McIlwraith.*) A specimen was captured alive on a coal dock near the bay-front, Toronto, on September 7th, 1899. The bird soon died and proved to be a male. This is the only Toronto record of which I am aware. (*J. H. Fleming* in *The Auk*, Vol. XVII., 177.) In the Bryant collection in the Museum of Comparative Zoölogy there is an American barn owl taken by Mr. Louis Cabot at Long Point, Ontario, early in November, 1899. The specimen (No. 1482) was secured for the collection by Mr. H. B. Bigelow. (*Reginald Heber Howe, jr.*, in *The Auk*, Vol. XIX., p. 79.)

FAMILY XXX. **BUBONIDÆ.** HORNED OWLS, &C.CXXXII. **ASIO** BRISSON. 1760.386. **American Long-eared Owl.**

Asio wilsonianus (LESS.) COUES. 1882.

This species, like most of the owls, is so retiring in its habits that their absence from a district is more apparent than real. On

this account we conclude that it breeds in its range from Newfoundland, Nova Scotia, Prince Edward Island, New Brunswick, Quebec and Ontario. We have records of its occurrence in all these provinces but not as being anywhere common.

After long watching I at last found a small colony of these birds (seven in number) in a cedar swamp some miles from the city of Ottawa, Ont., and secured a fine pair on the 1st November, 1901. (*G. R. White.*)

This is a tolerably common summer resident in Manitoba, and evidently breeds throughout the province. (*Thompson-Seton.*) One seen at Indian Head, Assa., on April 13th, 1892, and not seen again until June. The one killed had a white-footed mouse and some large beetles in its stomach. On May 8th, 1894, a pair was seen at Medicine Hat, Assa., and others were seen on Old Wives' Creek, Assa., May, 1895; it was not observed anywhere in the Rocky Mountains but was not uncommon in the woods at Edmonton, Alta., in May, 1897; later, I found a nest, with six eggs, in a spruce tree about ten feet from the ground, composed of sticks and lined with dried grass and leaves; a pair seen at Sicamous, B.C., in July, 1889. (*Spreadborough.*) This bird has been found as far north as Lat. 60°, and probably exists as far north as the forest extends. It is plentiful in the woods skirting the Saskatchewan plains, and frequents the shores of Hudson Bay only in summer. (*Richardson.*) North to Fort Simpson on the Mackenzie; rare. (*Ross.*) Common throughout British Columbia. (*Lord.*) Rare; I have taken it on Vancouver Island only. (*Fannin.*) Not common in the Lower Fraser valley; resident; not uncommon on Lake Okanagan in the winter of 1897-98; resides in the Cariboo district of British Columbia throughout the winter. (*Brooks.*) Rare everywhere but likely to turn up anywhere in British Columbia. (*Rhoads.*)

BREEDING NOTES.—Rarely observed in eastern Ontario. One specimen shot near Lynn, Leeds Co. in the fall of 1893. (*Rev. C. J. Young.*) Not common, breeds in old crows' nests. Eggs five or six. (*W. E. Saunders.*) May 20th, 1881, found a nest in a clump of willows about 20 miles west of Winnipeg, Manitoba; nest, a small bundle of sticks lined with the inner bark of the willow, about eight feet from the ground; eggs, three. Also found a nest not quite finished at Medicine Hat in the spring of 1894 in a Manitoba maple; nest about the same height from the ground

as the first. Also found a nest at Edmonton in the spring of 1897 in a black spruce tree; all the nests were alike and near water. The long-eared owl feeds upon mice and small birds, also upon insects; I have found a number in their stomachs. (*Spreadborough.*) On May 22nd, 1893, I found a nest at Oak Lake, Manitoba, that was only five feet from the ground; it contained five eggs. This bird is an early breeder and usually has fresh eggs by the end of April or early in May, but the next species—the short-eared owl—is a late breeder and seldom has eggs before June. (*W. Raine.*)

MUSEUM SPECIMENS.

Seven; one purchased with the Holman collection in 1885, another taken at Ottawa, Ont., by Mr. G. R. White. Five others were taken at Indian Head, Assa., at Medicine Hat, Assa., at Edmonton, Alta., and at Victoria, B.C., by W. Spreadborough.

A set of six eggs taken near Edmonton, Alta., by W. Spreadborough, May 15th, 1897. Another set of two eggs taken at Grenfell, Assa., by Richard Lake, 1894.

367. **Short-eared Owl.**

Asio accipitrinus (PALL.) NEWT. 1872.

A scarce species in Greenland, but perhaps breeds there, though not further to the south than Lat. 65°. Its northern range altogether unknown, but it has been shot on the Green Island in Disco Bay, Lat. 68° 50'. (*Arct. Man.*) This species is a summer resident at Fort Chimo, Labrador; specimens obtained in Davis Inlet; plentiful on the east shore of Hudson Bay. Not known to winter in the Ungava District. (*Packard.*) Rather common at Port Manvers and Nachvak, Labrador in September. (*Bigelow.*) A summer resident but not common in Newfoundland. (*Reeks.*) Not common in Nova Scotia, but breeds there. (*Downs.*) Common on the Grand Pré, near Wolfville, N.S., from April to the middle of December. (*H. Tufts.*) Rare at St. Johns, New Brunswick. (*Chamberlain.*) Not uncommon some years ago at Scotch Lake, York Co., N.B. (*W. H. Moore.*) On July 22nd, 1889, two were seen by Mr. Gardenain, on Niapisca Island, one of the Mingan Group, Quebec. (*Brewster.*) Fort Churchill, Hudson Bay. (*Clarke.*) Fort Churchill and York Factory, Hudson Bay.

(*Dr. R. Bell.*) An owl believed to be this species was seen in the marshes on the Magdalen Islands. (*Bishop.*) Summer resident in Quebec. (*Dionne.*) A common, but transient visitant at Montreal; more plentiful in the autumn. Specimens taken at Montreal in October, 1889 and 1890, and others seen at Boucherville Island in October, 1892. (*Windle.*) A pair was shot October 6th, 1883, by Mr. G. R. White, and one was seen the same month by Mr. W. L. Scott; these are the only records. (*Ottawa Naturalist*, Vol. V.) This is a commoner species than the long-eared owl and is likely more northern in its range. I have often observed this species skimming noiselessly over the inlets and moist meadows along the shore of Hamilton Bay. (*McIlwraith.*) The only records I have heard of in the districts of Parry Sound and Muskoka are of two found at Port Sidney by Mr. Hay. Common in the autumn at Toronto, Ont. (*J. H. Fleming.*) These birds visit us in varying numbers at Toronto each fall. During October, 1896, they were particularly abundant and while walking on the island it was not at all unusual to see upwards of a dozen on the wing at the same time. Everywhere on the island their advent was clearly marked by the vast numbers of bird remains scattered around, among which I noticed those of many of the woodpeckers. I also noticed the remains of several smaller owls which leads me to conclude that they are not altogether innocent of cannibalism. (*J. Hughes-Samuel.*)

This species is tolerably common in Manitoba, but is a dweller amongst the marshes and is seen there chiefly. It breeds throughout the province. (*Thompson-Seton.*) Two individuals were seen at Indian Head, Assa., April 6th, 1892; soon afterwards they became common, and began to breed. They fly often in the day time in bright sunlight and on one occasion I saw one fly aimlessly about for over an hour and clapping its wings together so rapidly that they sounded like a rattle; quite common at Medicine Hat and Crane Lake, Assa., in May and June, 1894; in July, 1895, they were common along Milk River and on the West Butte, Lat. 49°, Alta.; a few individuals seen at Edmonton, Alta., in May, 1897; not observed in the Rocky Mountains, but seen in the Fraser valley at Agassiz in May, 1889. (*Spreadborough.*)

This owl is a summer visitor in the Northwest Territories, arriving as soon as the snow disappears and departing in September. We observed it as far north as Lat. 67°, and a female killed at

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Fort Franklin on the 20th May, contained several pretty large eggs nearly ready for exclusion. (*Richardson.*) North of Fort Simpson on the Mackenzie; common. (*Ross.*) This species is a regular and common migrant and summer resident at St. Michael and is found as far north as Kotzebue Sound where skins were procured in 1880. (*Nelson.*) This is the commonest bird of prey in Alaska. It is to be found on all of the mainland and Aleutian islands. (*Turner.*) Sumas and Chilliwack prairies. (*Lord.*) Found only on the coast; a male was taken at mid-day at New Westminster. (*Streator.*) Abundant, both on the island and on the mainland; remains on the coast throughout the winter. (*Fannin.*) Abundant resident in the Lower Fraser valley, B.C.; rather common in the Okanagan district in winter; occurs in the Cariboo district in winter. (*Brooks.*) Vancouver and Lulu islands and about the lakes of the interior. (*Rhoads.*) The short-eared owl was noted everywhere during the summer from the vicinity of Cape Blossom up to the Kowak, at Kotzebue Sound, Alaska. (*Grinnell.*) A series of nine specimens from Point Barrow, Alaska, collected in June, 1898, are considered a new race by Mr. Witmer Stone in Proc. Acad. Nat. Sci., Phila., Vol. 41, p. 478.

BREEDING NOTES.—Not uncommon in the fall in eastern Ontario. One specimen shot near Lansdowne, Ont., in 1891. Breeds every year on the Magdalen Islands, Gulf of St. Lawrence. This bird forms a slight nest on the ground amongst *Carex*, sedge, etc., sometimes among low bushy shrubs, and lays from five to nine eggs in the month of June. I have a set of nine eggs taken June 14th, 1898, in the northernmost part of the islands, and have no doubt a few pairs breed there every year. A nest containing seven eggs was found in Cataraqui marsh near Kingston, Ont., on May 23rd, 1902, by Mr. Ed. Beauprè, Kingston. It was in a wet but grassy place. (*Rev. C. J. Young.*)

Twelve nests of this species were found in various situations in the "barrens" as well as in wooded tracts, but all were on the ground, and mere depressions apparently scraped for the purpose, and lined with dried grasses and withered leaves; a few feathers were noticed in about half of them, and they seemed to have been plucked from her breast by the parent bird. She occasionally sits very close on her nest. The number of eggs in a nest varied between three and five, and but one contained as

many as seven. On 30th June, 1865, an owl was observed flying about a particular spot in the barren grounds, and we concluded that its mate was not far off, a suspicion confirmed by its uneasy excitement as soon as a search was instituted. Myself and four of our party were thus fully engaged over an hour ere success rewarded our efforts by the female getting off her nest in the centre of a small clump of dwarf willows, one foot in height, just as she was almost trodden upon. It was composed of withered grasses and feathers, and contained five eggs. We must have frequently approached her in the course of our protracted search. (*Macfarlane*.)

I have found this species nesting in Manitoba and Assiniboia, making its nest on the ground; it lays from five to seven eggs. I have three sets that were taken at Shoalwater Bay and Mackenzie Bay, Arctic America. One set of five eggs was taken June 6th, 1898, another set of four, June 4th, 1890, and another set of five, June 7th, 1898, so that the first week in June appears to be the time this bird has fresh eggs in the Arctic regions. The Eskimo's name for this bird is Nipaiclooktik. (*W. Raine*.)

MUSEUM SPECIMENS.

Six; one purchased with the Holman collection in 1885; one procured at Aylmer, Que., in 1886; one in Russell Co., Ont., in September, 1890; three others were taken at Indian Head, Assa., Edmonton, Alta., and Victoria, B.C., by W. Spreadborough.

One set of five eggs taken at Moose Jaw, Assa., May 28th, 1894, by Mr. W. Raine. Nest on ground. A hollow lined with grass and weeds, built on a rising ground overlooking the slough.

CXXXIII. **SYRNIUM** SAVIGNY. 1809.368 **Barred Owl.**

Syrnium nebulosum (FORST.) BOIE. 1828.

Apparently a summer resident but not common in Newfoundland. (*Reeks*.) A common resident in Nova Scotia both winter and summer. (*Downs*, *Gilpin*.) An abundant resident in New Brunswick. (*Chamberlain*.) A permanent resident at Scotch Lake, York Co., N.B.; tolerably common. (*W. H. Moore*.) Taken at Beauport; a resident in Quebec. (*Dionne*.) A permanent resident at Montreal, but not common. • I shot a female and male specimens October 25th, 1889, and February 8th, 1890, on the spur of Mount Royal. (*Wintle*.) A moderately common resident in

the Ottawa district. (*Ottawa Naturalist*, Vol. V.) Along the southern boundary of Ontario the barred owl is by no means rare, but farther north I have not heard of it being observed. (*McIlwraith*.) A common resident in Parry Sound and Muskoka districts. Common around Toronto, also at Cache Lake, Algonquin Park. (*J. H. Fleming*.) The most northern point I have met this bird is Whitney on the Parry Sound Railway, northern Ontario. (*J. Hughes-Samuel*.) A rare resident in the London district. (*W. E. Saunders*.) Rare and probably migratory. A summer resident though rare; more common east of Winnipeg, Man. (*Thompson-Seton*.) This species was described from a specimen sent from Hudson Bay by Mr. Graham. I have never observed the bird in my travels in America. (*Richardson*.)

BREEDING NOTES.—A few of these birds are met with every year along the St. Lawrence but it is not common. The nest has been found in a hole in a tree near Kingston, Ont., and a few years ago I saw five young birds that were shot about a mile outside of the town of Brockville, Ont., in July. (*Rev. C. J. Young*.) Rare; no authentic record of its breeding near London, Ont., though doubtless it does so. (*W. E. Saunders*.)

MUSEUM SPECIMENS.

Three; one purchased with the Holman collection in 1885; one taken at Ottawa, Ont., by G. R. White; another fine specimen taken at Ottawa was presented to the museum by Mr. George D. Larose.

One set of three eggs taken near Chatham, Ont., by W. Raine, April 4th. 1897. Nest in a hole in a tree about 35 feet from the ground.

369a. **Spotted Owl.**

Syrnium occidentale caurinum MERRIMAN, 1898.

I saw a specimen of this owl which was taken a few miles down the Fraser from Chilliwack, B.C.; apparently confined to the Lower Fraser valley, where it is a rare and local resident. (*Brooks*.)

CXXXIV. **SCOTIAPTEX** SWAINSON. 1837.370. **Great Grey Owl.**

Scotiaptex cinerea (GMEL.) SWAINS. 1837.

Specimen No. (32,306) in the Smithsonian Institution collection was obtained by James McKenzie at Moose Factory, James
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Bay. No record from any other part of the country. (*Packard.*) One seen on the 11umber River, Newfoundland, August 28th, 1899. (*L. H. Porter.*) A specimen taken a few years ago in Pictou Co., Nova Scotia, is the only one known except one in the collection of the late Dr. McCulloch. (*Gilpin.*) Occurs in winter at Grand Manan, New Brunswick. (*Herrick.*) Taken at Lorrette; resident in northern Quebec. (*Dionne.*) A scarce winter visitant at Montreal. During the winter of 1889-90 this owl appeared at Montreal in great numbers and many specimens were taken. (*Windle.*) A rare winter visitor at Ottawa. Only one secured in ten years. (*G. R. White.*) In southern Ontario this species is a casual visitor in winter only. I have seen specimens taken in Muskoka and at Hamilton. (*McIlwraith.*) Sometimes abundant in the Parry Sound and Muskoka districts in winter. Occurs irregularly about Toronto, Ont.; it sometimes appears in southern Ontario in numbers, but is usually absent, such migrations are rare, the last one at Toronto was about 1889. (*J. H. Fleming.*) On 28th February, 1896, a specimen was taken on Toronto island. In December, 1898, I saw one, taken at Whitney, on the Parry Sound Railway, and I was shown two fine specimens which were taken at Scotia Junction, on the same railway the preceding year. (*J. Hughes-Samuel.*)

Rare winter visitor in Manitoba. Found chiefly along the Red River and at Lake Winnipeg. (*Thompson-Seton.*) This imposing bird which was first described from Hudson Bay is by no means a rare bird in the Northwest Territories, being an inhabitant of all the wooded districts lying between Lake Superior and Lat. 67° or 68°, and between Hudson Bay and the Pacific. It is common on the borders of Great Bear Lake; and there and in the higher parallels of latitude must pursue its prey during the summer months by daylight. It keeps, however, within the woods and does not frequent the barren grounds like the snowy owl. (*Richardson.*) This fine owl is a common and well known resident throughout all the wooded parts of Alaska from Sitka north to the northern tree limit, and from the vicinity of Behring Straits throughout the territory. (*Nelson.*) This species is a resident of the Yukon valley and was obtained on the coast at Uphim Slough, the northern part of the Yukon Delta. (*Turner.*) A rare species; shot at Sumas only. (*Lord.*) A rare species; I have one specimen taken at Chilliwack, B.C., in November, 1887; and another that was taken at Stewart's Lake, B.C., Lat. 54°,

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1891. (*Fannin*.) Rare at Chilliwack; most probably breeds; rare in winter at Lake Okanagan, B.C. (*Brooks*.) One shot at Vernon, B. C., was mounted by Mr. Pound last year, 1891. (*Rhoads*.)

BREEDING NOTES.—I should not say that this owl was in "great abundance" in the Anderson region, as inadvertently stated on page 33, Vol. III. of the Land Birds. We certainly observed very few specimens, and we found but one nest, that referred to in the same paragraph, on the 19th July, 1862, near Lockhart River, on the route to Fort Good Hope. It was built on a spruce tree at a height of about twenty feet, and was composed of twigs and mosses thinly lined with feathers and down. It contained two eggs and two young, both of which had lately died. The female left the nest at our approach and flew to another tree at some distance, where she was shot. (*Macfarlane*.)

During the winter of 1895-96 Mr. Dippie and myself received over a dozen of these birds in the flesh that were shot in Alberta. We also received about 50 American hawk owls in the flesh that same winter. Settlers informed me that the whole of Alberta swarmed with owls and they remained until April when all migrated north except one pair of great grey owls which remained and nested in the Red Deer River district, and Mr. Dippie secured the eggs along with the parent which is probably the only record of this bird ever nesting as far south, as its summer home is along Great Bear Lake and northward. It breeds at the mouth of the Mackenzie River, Arctic America, making a nest of sticks and weeds in the highest spruce trees it can find. (*W. Raine*.)

MUSEUM SPECIMENS.

Two fine specimens. Both were procured at Toronto, Ont., by Mr. S. Herring.

370a. **Lapp Owl.**

Scotiaptex cinerea lapponica (RETZ.) RIDGW. 1887.

A single specimen of this species was taken in the Yukon Delta, on April 15th, 1876, and sent to me. It is said to be quite rare. (*Turner*.)

CXXXV. **NYCTALA** BREHM. 1828.371. **Richardson's Owl.***Nyctala tengmalmi richardsoni* (BONAP.) RIDGW. 1872.

A possible resident of Newfoundland, but I have not seen it. (Reeks.) Becoming very rare; seen only in winter in Nova Scotia. (Downs.) Very rare in Nova Scotia. Have seen only four specimens. (Gilpin.) Occasionally met with at St. John's, New Brunswick. (Chamberlain.) One taken at Scotch Lake, York Co., N.B., in winter. (W. H. Moore.) Taken at Beauport; winter resident in Quebec. (Dionne.) A scarce winter visitant at Montreal. (Windle.) This is a winter visitor at Ottawa, Ont., and has been taken by Mr. G. R. White and seen by Mr. Lees. (Ottawa Naturalist, Vol. V.) My specimens of this species were shot at Toronto, Ont., and I have very few records of its occurrence in other parts of the province. (McIlwraith.) Occurs about Toronto but is very rare. Mr. Hay has met with one or two in the Parry Sound district. (J. H. Fleming.) Probably resident in the wooded sections of Manitoba. A common winter visitor; in January, 1885, Mr. Hine of Winnipeg showed me several dozen skins taken that fall near Winnipeg. (Thompson-Seton.) I cannot state the range of this species but believe that it inhabits all the wooded country from Great Slave Lake to the United States. On the banks of the Saskatchewan it is so common that its voice is heard almost every night by the traveller wherever he selects his bivouac. (Richardson.) North to Fort Simpson on the Maczenzie; rather rare. (Ross.) This handsome little bird is common throughout all northern Alaska, wherever trees or bushes occur to afford it shelter. (Nelson.) This owl does not occur at St. Michael, on the coast. It inhabits the wooded districts. (Turner.) A rare winter visitant at Chilliwack, B.C.; a considerable irruption of this owl occurred throughout the southern interior during the winter of 1898-99; rare in the Okanagan district in winter; resident throughout the winter in the Cariboo district, B.C. (Brooks.)

BREEDING NOTES.—This small owl is occasionally met with in eastern Ontario in the late fall. I have seen a specimen shot near Kingston. It breeds not uncommonly on the Magdalen Islands, usually selecting a hole that had been made by the "flicker" in a dead spruce stub. I saw two sets of eggs, of four

and five respectively taken in 1898. The set of four together with part of the remains of the parent bird, killed by ravens that occupied an adjoining tree, I now have. These were laid early in April. The other set was taken on May 3rd, the old bird being captured on the nest at the same time. (*Rev. C. J. Young.*) This owl, or one very like it, was repeatedly observed in the country between Fort Good Hope and the Anderson River. (*Macfarlane.*) Dr. George informs me that Richardson's owl nests in northern Alberta. (*W. Raine.*)

MUSEUM SPECIMENS.

Two; one purchased with the Holman collection in 1885 and the other procured in Toronto, Ont., by S. Herring.

372. **Saw-whet Owl.**

Nyctala acadica (GMEL.) BONAP. 1838.

Specimen (No. 32,301) in Smithsonian Institution collection was obtained at Moose Factory, James Bay, by James McKenzie. (*Packard.*) A not uncommon summer migrant in Newfoundland. (*Reeks.*) A resident but becoming rare in Nova Scotia. (*Downs.*) A common resident in Nova Scotia. (*Gilpin.*) Present throughout the year at Wolfville, York Co., N.S.; most common in winter. A nest was taken in April, 1902, containing six eggs. (*H. Tufts.*) A pair heard at Sydney, Cape Breton Island, June 12th, 1902. (*C. R. Harte.*) Resides throughout the year, but more common in winter at St. John, New Brunswick. (*Chamberlain.*) Permanent resident; not common; breeds at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Taken at Beauport; resident in Quebec. (*Dionne.*) Permanent and common resident at Montreal. I have taken this little owl, May 24th, 1884, in the woods below Hochelaga; also on Isle Jesus and Mount Royal. (*Wintle.*)

A moderately common resident in the Ottawa district. (*Ottawa Naturalist*, Vol. V.) This species though a resident in Ontario is of infrequent occurrence and in some winters is not seen at Hamilton while in others it has been taken in numbers. (*McIlwraith.*) Not common at Emsdale; reported as resident at Port Sydney, Parry Sound and Muskoka districts; generally distributed but not abundant in Ontario; large flocks have been seen on Toronto Island in the autumn; observed at Câche Lake, Algonquin Park.

(*J. H. Fleming.*) Not common in summer in the London district, though young have been found; more often noticed in winter and fall. (*W. E. Saunders.*)

A rare resident; noted only on Red River and eastward in Manitoba. (*Thompson-Seton.*) This species was not noticed on the prairie nor in the mountains until the Columbia River was reached; a few specimens were seen in the Columbia River valley at Arrow Lake in June, 1890; others were seen at Sicamous in July, 1889. (*Spredborough.*) This owl was not noticed on the route of the expedition, but specimens were sent from New Caledonia by Mr. Archibald McDonald. (*Richardson.*) Obtained only east of the Coast Range. (*Lord.*) Not by any means common; I have taken it in winter at Burrard Inlet; and a few have been taken on Vancouver Island; Mr. Anderson reports it from Port Simpson, B.C. (*Fannin.*) Tolerably common at Chilliwack, B.C.; a possible resident; common in the winter at Lake Okanagan, B.C.; resident in winter in the Cariboo district, B.C. (*Brooks.*) An immature male was taken at Vernon, B.C., in July, 1892. (*Rhoads.*)

BREEDING NOTES.—This owl breeds sparingly along the St. Lawrence, as in June, 1892, I saw a young one captured alive on one of the wooded islands of the river. The bird has also been obtained near Kingston, Ont. (*Rev. C. J. Young.*) A young bird in pin feathers was shot near St. Thomas, Ont., in June. Doubtless breeds in some of the heavy cedar swamps. (*W. E. Saunders.*) I have a set of eggs taken north of Peterboro, May 17th, 1894. The eggs were laid in a woodpecker's hole. (*W. Raine.*)

MUSEUM SPECIMENS.

Five; one taken at the falls of Blind-man River, Alta., by G. F. Dippie; the others at Edmonton, Alta., and Victoria, B.C., by W. Spreadborough.

CXXXVI. **MEGASCOPS** KAUP. 1848.

373. **Screech Owl.**

Megascops asio (LINN.) STEJN. 1885.

A summer migrant in Newfoundland and tolerably common. (*Reeks.*) Apparently very rare at St. John, New Brunswick; but said to be common and breeds at Grand Manan. (*Chamberlain.*) Very rare at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Winter visitant at Montreal, but scarce; both forms occur here. (*Windle.*)

After hunting and watching for some years, in December, 1902, I obtained my first specimen of this owl, taken at Ottawa, Ont.; it was in the gray or normal phase, and in fine plumage. (*G.R. White.*) In the same month a fine specimen was taken by Mr. Young, at Hurdman's Bridge, near Ottawa, and another was seen sitting in a tree on Daly Avenue, Ottawa, in open day.

This is the most abundant of the owls in the vicinity of Hamilton, and as many as forty were seen during the winter of 1883-4; in 1885-6 not a single individual was seen. (*McIlwraith.*) Rare at Emsdale; Mr. Hay reports it as resident at Port Sydney, Muskoka and Parry Sound districts; breeds about Toronto in limited numbers. (*J. H. Fleming.*) A fairly common resident in the London district, but only occasionally noted in Bruce Co., Ont. (*W.E. Saunders.*) Mr. Hunter claims the screech owl for Manitoba saying: "I saw a pair at Sabaskong Bay, Lake of the Woods, and in 1871 heard them at Point du Chêne." (*Thompson-Seton.*) The writer reported this species from near Fort Pelly, Manitoba, but discovered later that it was the Acadian owl.

BREEDING NOTES.—One of the owls that is becoming more numerous than formerly, and breeding in suitable woodlands in eastern Ontario. I both hear of and have seen it on Wolfe Island, and have seen the young near Lansdowne. It is a common thing to hear it at night in the fall. (*Rev. C. J. Young.*) Well distributed in the London district; breeds in cavities in trees. (*W. E. Saunders.*)

MUSEUM SPECIMENS.

Three; two procured in Toronto, Ont., by S. Herring, in 1885; one taken at Ottawa and presented to our museum by Mr. Young.

One set of three eggs, taken at Scarborough Heights, east of Toronto, by W. Raine, April 28th, 1898. Eggs laid in old woodpecker's hole in a decayed pine 25 feet from the ground.

373d. Kennicott's Screech Owl.

Megascops asio kennicottii (ELLIOT) STEJN. 1885.

The type of this bird in the tawny brown phase, was taken at Sitka and described by D. T. Elliott. Within the last few years we have learned that it extends down the northwest coast from Sitka to Oregon. (*Nelson.*) I obtained a male from Mr. Lindley of Victoria, B.C. (*Rhoads.*)

373*h*. **Macfarlane's Screech Owl.***Megascops asio macfarlanei* BREWST. 1891.

Southern portion of the mainland of British Columbia east of the Coast Range. (*Fannin*.) A specimen seen at Sicamous, B.C., July 16th, 1889, is referred here. (*Macoun*.)

373*k*. **Puget Sound Screech Owl.***Megascops asio saturatus* BREWST.

Vancouver Island and coast of southern British Columbia; breeds in the neighbourhood of Victoria. (*Fannin*.) Common resident in the Lower Fraser valley. (*Brooks*.) Common in the woods around Chilliwack Lake, B.C., July and August, 1891; a common resident throughout Vancouver Island. (*Spreadborough*.)

MUSEUM SPECIMENS.

Two specimens taken at Victoria, Vancouver Island, February 2nd, 1890, by W. Spreadborough.

One set of three eggs taken on Vancouver Island by Rev. G. W. Taylor in 1886.

CXXXVII. **BUBO** DUMÉRIL. 1806.375. **Great Horned Owl.***Bubo virginianus* (GMEL.) BONAP. 1838.

Summer resident in Newfoundland and breeds. (*Reeks*.) Common on the Humber River, Newfoundland. (*L. H. Porter*.) Abundant throughout the year in Nova Scotia. (*Downs*.) Both breeds and winters in Nova Scotia and Cape Breton Island. (*Gilpin*.) A common resident in New Brunswick. (*Chamberlain*.) Several young observed in the Restigouche valley, N.B. (*Brittain & Cox*.) Permanent resident; rare at Scotch Lake, York Co., N.B. (*W. H. Moore*.) Once seen and frequently heard, Cumberland Co., Nova Scotia, winter of 1897-98. (*Morrell*.) Fort Churchill, Hudson Bay. (*Clarke*.) Taken at Beauport; a resident in Quebec. (*Dionne*.) A common, permanent, resident at Montreal. I saw two of these owls October 18th, 1885, in woods at St. Martin's Junction, and two others the next year in the same place. In both cases they were mobbed by crows. Many specimens are taken in the vicinity. (*Wintle*.) Two individuals observed on Moose River, northern Ontario, June 2nd, 1896. None seen

while crossing Ungava. (*Spreadborough*.) A rare resident in the Ottawa district. (*Ottawa Naturalist*, Vol. V.) This species is generally distributed throughout Ontario and is very variable in colour. (*McIlwraith*.) A common breeding species and a resident in the districts of Parry Sound and Muskoka; common around Toronto, Ont.; also in Algonquin Park, a few breed. (*J. H. Fleming*.) On the 29th March, 1897, I took one of these birds whose stomach contained the greater part of a crow, primaries and all. If this powerful rascal is in the habit of paying nocturnal visits to the roosting places of the crows in bad weather it is small wonder that the retaliative instinct asserts itself in daylight. (*J. Hughes-Samuel*.) Well distributed throughout the London district; breeding in large nests in the early spring. (*W. E. Saunders*.) The typical form occurs in British Columbia as well as every possible intergrade between the darkest *saturatus* and *subarcticus*, almost light enough for *arcticus*. (*Brooks*.) A discussion of the horned owls of Washington and British Columbia will be found in an article in *The Auk*, Vol. X., p. 18 (1893). It is probable that all the races of *Bubo virginianus* are to be found in British Columbia. (*Rhoads*.)

BREEDING NOTES.—When we first came to Muskoka they were very rare, I only observed two in twenty years, but during that time the barred owl was very abundant. Since the horned owl has become common it has almost disappeared and now one seldom hears or sees one and the horned has become just as common as the barred used to be. This leads me to think that it has been killed or driven away by the other. The horned owl is not beneath killing a mouse if there is no larger game about but I think hares are its chief food during the winter. It kills a good many skunks in the summer. On one occasion my brothers found one that had seized a skunk which had bitten it so badly that it had died from the wounds. It kills muskrats in the fall when they are building their houses and when they are out upon the marshes getting grass to build with. One night two winters ago one came into a barn-yard and killed two geese. The farmer caught it in a trap a few nights after. These owls are usually found along the rivers and streams in thick woods. The western form in Manitoba and the northwest is usually found in willow thickets along the banks of streams and the edges of sloughs. I have seen them time and again fly from a log or a stone, up

the bank of a stream at my approach, which leads me to think that they are very fond of bathing and washing themselves, although I never saw one in the act. They feed chiefly upon the hares that live in the thickets. (*Spreadborough.*) This species builds in holes in trees when such can be found, it also builds in hemlock, beech or other large trees in the vicinity of Ottawa. The nest is placed near the trunk of the tree and is composed of dry sticks, probably lined with leaves and feathers; the eggs are two or three in number. (*G. R. White.*) A fairly common species along the St. Lawrence, but rapidly becoming rarer. I have seen the nest several times; one near Perth, Ont., in a tamarac tree not more than twelve feet from the ground, which on May 30th, 1886, contained two young ones just able to fly. It is a very early breeder; on the 11th April, 1895, I found a nest with two much incubated eggs. The nest occupied was in a yellow birch, and the previous year had been tenanted by a pair of red-shouldered hawks. This nest was again occupied by the owls three years later. Again in 1899 I found the nest in a hemlock about sixty feet from the ground on March 28th, when the weather was very cold and snow covered the ground. This nest contained two eggs, incubation far advanced. This owl is easily kept in confinement and does not appear to suffer from changes of weather. I have had one for fifteen years. (*Rev. C. J. Young.*) A nest of this species found in May, 1900, containing two large young, had beneath it numerous fragments of birds and mammals, among the former were remains of a broad-winged hawk, two red-shouldered hawks and one red-tailed hawk. (*W. E. Saunders.*)

MUSEUM SPECIMENS.

Three; one purchased with the Holman collection in 1885, another procured by S. Herring at Toronto, Ont.; one taken at Walker's Pond near London, Ont. by W. E. Saunders.

One set of two eggs taken at Scarboro Heights, east of Toronto, Ont., April 2nd, 1897; nest in an old red-shouldered hawk's nest in the top of a tall maple.

375a. **Western Horned Owl.**

Bubo virginianus pallescens STONE. 1897.

I have a specimen taken at Rosseau, Muskoka District; among the horned owls killed about Toronto in the autumn will often be

found an owl lighter in colour than pure *virginianus* and yet darker than *arcticus*, this form is generally accepted as the western horned owl, and as long as the division of the horned owls is maintained we must admit this form as a Toronto bird. (*J. H. Fleming.*)

This form is a common resident in Manitoba wherever there is timber; this form of *Bubo* is lighter in colour than the true *Bubo virginianus subarcticus*. It is probably just intermediate between that form and var. *arcticus*. Evidently a common permanent resident in Manitoba as all observers agree in this. (*Thompson-Seton.*) Fine specimens of this form were taken at Indian Head, Assa., in May, 1892; at Medicine Hat and Crane Lake, Assa., May, 1894; and in the Cypress Hills in June of the same year; a few were seen on Old Wives' Creek, Assa., and at the West Butte, Lat. 49°, Assa., 1895; occasionally seen at Banff, Rocky Mountains, in the summer of 1891; observed near Cascade and on Sophie Mountain, B.C., at the International Boundary in July, 1902; one taken at Agassiz, B.C., May, 1889. (*Spreadborough.*) This bird is found in all parts of the Northwest Territories where the timber is large and was taken by Mr. Drummond in the Rocky Mountains. (*Richardson.*) North to Arctic Circle and beyond, on the Mackenzie River. (*Ross.*) This bird is found throughout the entire wooded part of northern Alaska, extending its range in autumn to the open treeless shore along Behring Sea and portions of the Arctic coast. (*Nelson.*) This bird is only an occasional visitor at St. Michael, its place on the barren grounds being taken by the snowy owl. (*Turner.*) Abundant east and west of the Coast Range. (*Lord.*) Common in British Columbia. (*Streator.*) An abundant resident throughout the province. (*Fannin.*) Rather common in the Lower Fraser valley. (*Brooks.*)

BREEDING NOTES.—September 18th, 1884, Portage la Prairie: Mr. C. W. Nash gives me a very interesting note on a pair of horned owls that had nested in the woods here, and from the indications observed there seems little doubt that they subsist chiefly on fish, which were abundant in a small creek running from a lake through these woods to the Assiniboine River. On examining the gizzards of two of the young of this pair which Mr. Nash shot, he found them full of fish. At one place there were, unquestionably, evidences of an owl having seized a large fish with one foot and held on to the bank with the other. The creek

being very small, and surrounded with large bare trees, is a favorite run between the river and the lake for large fish at night, so that all the circumstances are very favorable for the prosecution of the piscatorial pursuits of the owls. On the 8th May, 1884, I found a pair of these birds in possession of an old nest in the Big Swamp on the Assiniboine River, south of the Big Plain. This nest was about 30 feet from the ground, in the crotch of a poplar tree, which was as yet without leaves. The nest was formed of sticks and twigs and was indistinguishable from that of a red-tailed buzzard. Once or twice I tried to shoot the old bird on the nest, but she was too wary, and evidently had all her wits about her even in the day time. (*Thompson-Seton.*)

As early as 20th March, 1892, at Indian Head, Assa., a pair of these birds were nesting. On May 24th I visited the nest and took the two young birds home with me. They soon became quite tame and would allow me to stroke them, and although they often pecked my hands they never were able to draw blood. They seem to have little power with their beak. By July 7th they were as large as the old ones. It depends very much on their food how often they eject pellets. If fed on chopped gophers, skins and all, they would eject about five times a week, if on the bodies of birds that had been skinned, about three times a week. On June 3rd found a nest with two very young ones. Their eyes were not open yet, and they seemed only about five days old. On the 7th one opened its eyes and on the 10th the other one. They were quite white when very young and altogether without ear tufts. Their eyes are very small at first and the iris a dirty white, and it was not until they were a month old that their eyes attained the bright yellow appearance. (*Spreadborough.*)

MUSEUM SPECIMENS.

Two; one taken in the Touchwood Hills, Assa., September 21st, 1880, by the writer; the other by W. Spreadborough at Edmonton, Alta., June 11th, 1897.

One set of two eggs taken about four miles north of Red Deer, Alta., by G. F. Dippie, April 10th, 1896. Nest evidently in an old hawk's nest in a cottonwood about 35 feet from the ground.

375b. Arctic Horned Owl.

Bubo virginianus arcticus (SWAINS.) CASS. 1854.

The purest type of *arcticus* seems to centre about Lake Manitoba, in the winter at any rate, and I have always been able to get

typical specimens from there; darker forms occur but not so often as farther west. There have been several horned owls taken in Toronto that are almost, if not quite, pure *arcticus*. Some specimens from Edmonton, Alta., are very light coloured; in fact from Winnipeg to Calgary light ones are found in abundance in winter. The relationship of the horned owls seems to be in a very confused state. (*J. H. Fleming.*)

One shot near Duck Mountain, Manitoba, in the fall of 1883; another individual was taken by Macoun in October, 1880, in the Touchwood Hills, Assa. (*Thompson-Seton.*) This very beautiful owl appears to be rare, one specimen having been seen flying at mid-day in the immediate vicinity of Carlton House and was brought down by an arrow by an Indian boy. (*Richardson.*) This owl or the other variety was repeatedly observed in the country between Fort Good Hope and the Anderson River. (*Macfarlane.*) This pale-coloured form is sometimes seen in northern Alberta where it breeds. (*W. Raine.*)

3750. **Dusky Horned Owl.**

Bubo virginianus saturatus RIDGW. 1877.

Not rare at Fort Chimo, Ungava. Resident. Downy young obtained June 20th, 1884. (*Packard.*) A rare winter visitant at Montreal. I purchased a fine specimen of this owl February 8th, 1892, in the Bonsecours market, which was shot at Boucherville four days previously. (*Wintle.*) Large numbers of horned owls come into the Parry Sound and Muskoka districts every winter from the north, probably from Hudson Bay, some of them are as dark as the dark Labrador form. I have one of this form taken in Toronto. (*J. H. Fleming.*)

This species is an extremely dark-coloured form of the horned owl, found along the damp, heavily wooded south coast of the Alaskan territory, and extending its range southward to Washington. (*Nelson.*) An abundant resident west of the Coast Range. (*Fannin.*)

BREEDING NOTES. - A fine skin of the dark-coloured race of genus *Bubo* with the two eggs was collected for me by Mr. Dicks at Sandwich Bay, Labrador. The eggs were taken May 1st, 1896, and the nest was built in the top of a spruce, a large structure of sticks, weeds and rubbish. (*W. Raine.*)

MUSEUM SPECIMENS.

One specimen taken by Mr. James McEvoy at Lilloëet, west of Spence's Bridge, B.C.

CXXXVIII. **NYCTEA** STEPHENS. 1826.376. **Snowy Owl.**

Nyctea nyctea (LINN.) LIGHT. 1854.

Very common in Greenland in summer; more numerous in the northern Inspectorate than in the southern. Found also on the eastern coast and extends westward to Liddon Island and Melville Island, Lat. 75°. (*Arct. Man.*) A rare winter visitor at Ivigtut, Greenland. (*Hagerup.*) Common throughout the country. Breeds at Fort Chimo, Ungava. (*Packard.*) Tolerably common and probably resides all the year in Newfoundland. (*Reeks.*) Some years plentiful and others scarce in Nova Scotia, seen only in winter. (*Downs.*) A common and often an abundant winter resident; seen on Sable Island, N.S., in August, 1854. (*Gilpin.*) A winter visitor at St. John, N.B.; reported as occasionally spending the summer. (*Char. berlain.*) Winter visitor; rare at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Taken at Beauport; a winter visitant at Quebec. (*Dionne.*) Winter visitor at Montreal; some years it is scarce and others more plentiful. In the winter of 1891-92 I saw exposed for sale at one time in Bonsecours market five females and two males. (*Wintle.*) A winter visitor in the Ottawa district. (*Ottawa Naturalist*, Vol. V.) An irregular winter visitor in Ontario, sometimes appearing in considerable numbers and again being entirely absent. (*McIlwraith.*) This owl is found in both the Parry Sound and Muskoka districts in winter, but is not common, except in years of unusual migrations. A regular migrant at Toronto, very large numbers have appeared about the city at irregular intervals; 1889 was the last. (*J. H. Fleming.*) The snowy owl is commonly met with in the fall and winter in eastern Ontario and has been shot at Long Point, Wolfe Island, near Kingston. (*Rev. J. C. Young.*) A tolerably common winter resident in Manitoba. It arrives early in autumn and leaves in April. (*Thompson-Seton.*) Abundant from Norway House to Hudson Bay in winter. (*Dr. R. Bell.*) One seen April 1st and the last on April 20th at Indian Head, Assa., in 1892. (*Spreadborough.*) This highly beautiful and

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powerful bird is common in the more northern parts of America. It frequents in summer the most arctic lands and hunts in the day as indeed it has to do. When I have seen it on the Barren Grounds it was generally squatting on the earth, and if put up it alighted after a short flight. It preys on lemmings, hares and birds. It makes its nest on the ground and generally lays four eggs. (*Richardson.*) North to Fort Norman; rare. (*Ross.*) This species is not plentiful in the Anderson country and we never secured an egg. (*Macfarlane.*) From the Sitkan region north to the farthest point of Alaska this species keeps mainly to the more barren portions of the coast and interior, and always is found less numerous where trees are abundant. It occurs also on the islands in Behring Sea and more sparingly on the Aleutian chain. (*Nelson, Turner.*) This bird may be said to be a resident at Point Barrow, although in the depths of winter it retreats with the ptarmigan back to the "deer country," that is, to the valleys of the large rivers running into the Arctic Ocean east of Point Barrow. (*Murdoch.*) Not unfrequently seen near the entrance to the Fraser River. (*Lord.*) Resident in the northern portions of the province; south during some winters only, to the mouth of the Fraser and Vancouver Island. (*Fannin.*) An irregular migrant at Chilliwack, B.C.; occasionally seen in winter at Lake Okanagan, B.C.; several mounted specimens were in the Cariboo district. (*Brooks.*) I found the snowy owl unexpectedly scarce in the vicinity of Kotzebue Sound and when seen were mostly single individuals. (*Grinnell.*) This beautiful bird may be seen close to my house at Kew Beach, Toronto, almost every day in the winter, but they are very wary. They perch on the ice floes along the beach and keep out of gun range. My neighbour, Mr. Harold Douglas, shot one Nov. 28th, 1901. When wounded they are very ferocious and a dog is afraid to attack them as they throw themselves on their backs and strike out rapidly with their sharp, strong claws, and woe to the dog that gets his face struck by the claws of a wounded white owl. This bird breeds within the Arctic Circle. (*W. Raine.*) Usually seen on the Pribylov Islands, Behring Sea, in winter but occasionally in summer. (*Wm. Palmer.*)

BREEDING NOTES.—In Bendire's "Life Histories of N. A. Birds" is a record of a snowy owl nesting in Manitoba and having eggs advanced in incubation in the middle of February, but the time of the year—Manitoba midwinter—is sufficient to pronounce this

record as a pure invention of the alleged finder of the nest—one calling himself Le Grand T. Meyer—this, no doubt, being a fictitious name. The nest is described as being made of hay, grass and sticks, warmly lined with feathers and eighteen inches high above the level prairie. The alleged finder of this nest evidently was never in Canada or he would know that the ground is usually covered deep with snow at this time of the year and that it would be an impossibility for the snowy owl to prevent itself, being buried in the snow drifts; besides if the bird left its eggs for a few minutes they would get frozen and burst. I have a clutch of seven eggs and another of four eggs taken by Mr. Young, on Herschel Island, west of Mackenzie Bay. The nests were on the ground. (*W. Raine.*) This species is not plentiful in the Anderson country, while every effort made to secure even one specimen nest with its eggs proved unsuccessful; on one occasion we noticed a white owl hunting marmots (*Spermophilus empetra*) in the barren grounds; and there can be no doubt that this and other owls sometimes rob ptarmigan, ducks, etc., of their eggs. (*Macfarlane.*)

MUSEUM SPECIMENS.

Five; one purchased with the Holman collection in 1885; one taken at Toronto by S. Herring; one taken at Great Bear Lake, Lat. $65^{\circ} 30'$ by Max Bell; one taken at Ottawa, Ont., March, 1891, and another pure white one taken north of Ottawa.

CXXXIX. **SURNIA** DUMÉRIL.377. **Hawk Owl.**

Surnia ulula (LINN.) BONAP. 1842.

The introduction of this bird into our fauna rests on the capture of a single specimen near St. Michael, Alaska, in October, 1876, by Mr. L. M. Turner. (*Nelson.*) The natives assert that this species is a resident and breeds in the vicinity of St. Michael, and also that it is a coast bird, not going far into the interior. (*Turner.*)

377a. **American Hawk Owl.**

Surnia ulula caparoch (MÜLL.) STEJN. 1884.

Rare at Fort Chimo, Ungava; eggs obtained June 8th, 1884, and downy young nearly ready to leave the nest were taken June

20th. (*Packard.*) The commonest owl in Newfoundland or the one most frequently seen. (*Reeks.*) Now becoming very rare in Nova Scotia. (*Downs.*) A rare bird in New Brunswick, but occasionally taken. (*Chamberlain.*) Winter visitor; rare at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Fort Churchill, Hudson Bay. (*Clarke.*) Fort Churchill and York Factory, Hudson Bay. (*Dr. R. Bell.*) Rare at Lake Mistassini, northern Quebec; seen only in winter. (*J. M. Macoun.*) Taken at Beauport; not common in Quebec. (*Dionne.*) Transient visitor at Montreal. Some years this owl is common in the woods around Montreal and frequently shot in autumn or early winter. (*Windle.*) A winter visitant at Ottawa, Ont., but rare. (*Ottawa Naturalist*, Vol. V.) In southern Ontario this species can only be regarded as a rare winter visitor; it seems to be more frequent in Muskoka and further north. (*McIlwraith.*) A few were taken, some years ago, about Toronto, but it seldom comes here now; I have had specimens from both Parry Sound and Muskoka districts; it is rare and not by any means a regular winter visitor. (*J. H. Fleming.*) I met with two birds of this species at Whitney, Parry Sound Railway in December, 1898, and obtained another in the same month at Scotia Junction. (*J. Hughes-Samuel.*) No recent record of this species in the London district. (*W. E. Saunders.*)

This species is an irregular winter visitant in Manitoba, but Mr. Hunter states he is positive that it is a permanent resident and breeds in the wooded country east of the Red River. It is certainly common and very abundant some winters. (*Thompson-Seton.*) This is a common species throughout the Northwest Territories, and from Hudson Bay to the Pacific. In summer it feeds principally on mice and insects, but in winter it preys chiefly on ptarmigan. (*Richardson.*) North to the Arctic coast on the Mackenzie; common. (*Ross.*) This is perhaps the most abundant resident bird of prey throughout the entire wooded part of northern Alaska. It is rather closely limited to the region of spruce and pine forests of the interior, and occurs along the open coasts of the Arctic and Behring Sea merely as a straggler, and is unknown from the various islands of Behring Sea. (*Nelson.*) This species is a very common resident in the Yukon district. Along the coast it is quite abundant. (*Turner.*) Rock Creek, Lake Osyoos. (*Lord.*) A resident east of the Coast Range; west occasionally to Vancouver island; breeds along the valley

of the Similkameen. (*Fannin*.) Scarce at Chilliwack; probably breeds in the mountains of British Columbia; rare in the winter at Lake Okanagan, B.C. (*Brooks*.) Collected on Vancouver Island by W. F. Findlay and at Vernon, B.C., by W. C. Pound. (*Rhoads*.) I first met with the hawk owl near the head of Hunt River in the foothills of the Jade Mountains, about 20 miles north of our winter camp on the Kowak, Kotzebue Sound, Alaska. They arrived about April 10th, 1899, and left the preceding year on September 21st. (*Grinnell*.)

BREEDING NOTES.—In the spring of 1899 their arrival was noted on April 10th in the Yukon district of Alaska. At this date they were already paired, and a female secured contained large ova. On April 26th I located a pair of hawk owls which by their restlessness indicated a nesting site near by. The nest was finally found, but there were as yet no eggs. It was in the hollow end of a leaning dead spruce stub about 10 feet above the ground. The dry rotten chips in the bottom were modelled into a neatly rounded depression. The male bird was quite noisy often repeating a far-reaching rolling trill. Both birds frequently uttered a low whine, alternately answering one another. On May 8th, while snowshoeing across the country toward the base of the Jade Mountains, my attention was attracted by the distant trill of a hawk owl. After a half hour's search through a heavy stretch of timber, I located the bird perched at the top of a tall live spruce, partly hidden by the foliage. Then I began an inspection of all dead stubs and trees in the vicinity. I had given up hope of finding a nest and had started on, when, by mere chance, I happened to catch sight of a hole in a dead spruce fully 200 yards away. A close approach showed a sitting bird which afterwards proved to be the male. Its tail was protruding at least two inches from the hole, while the bird's head was turned so that it was facing out over its back. When I tapped on the tree the bird left the nest, flew off about thirty yards, turned and made for my head like a shot. It planted itself with its full weight on to my skull, drawing blood from three claw-marks in my scalp. My hat was torn off and thrown twelve feet. All this the owl did with scarcely a stop in its headlong swoop. When as far on the other side the courageous bird made another dash, and then another, before I had collected enough wits to get in a shot. The female which was evidently the bird I had first discovered on look-out duty then made her appearance, but was less vociferous. The nest con-

tained three newly hatched young and six eggs in various advanced stages of incubation. The downy young, although their eyes were still tightly closed and they were very feeble, uttered a continuous wheedling cry, especially if the tree were tapped or they were in any way jarred. This could be heard 20 feet away from the base of the tree. The nest cavity was evidently an enlarged woodpecker's hole. The wood was very much decayed and soft, so that it had been an easy matter to enlarge the entrance. The entrance was 14 feet above the snow, and the nest proper was three inches below that. The cavity was lined with a mixture of feathers and bits of the rotten wood. The feathers were all apparently from the breast of the female parent. The female bird (the male not at all, although he was sitting on the nest when it was found) had the whole breast and abdomen, from the upper end of the breast-bone to the vent, entirely bare of feathers, also on the sides up to the lateral feather tracts, and through these for about one inch on both sides under the wings; also down the inside of the thighs to the knees. This was the most extensive feather divestment I ever saw in any species. (*Grinnell*.)

The hawk owl is not uncommon in the region of Anderson River, although only four nests were discovered and the eggs taken therefrom. All of these were built in pine trees at a considerable height from the ground; one was actually placed on the topmost boughs, and, like the others, it was constructed of small sticks and twigs lined with hay and moss; the male and female of the latter were shot, and the nest contained two young birds, one of which was apparently ten days and the other three weeks old, together with an addled egg; all of the others, however, but one, had six eggs, and in a single instance as many as seven were secured; the parents always disapproved of our proceedings; very few owls were observed on the lines of march travelled over during the seasons of 1864 and 1865; this species winters in Arctic America. (*Macfarlane*.) This bird breeds sparingly in northern Assiniboia. Dr. George and Mr. Wenman inform me they have found it breeding in northern Alberta, around Red Deer; I have received eggs with the parent from northern Assiniboia; the four eggs were taken June 6th, 1899, and the nest was built in a willow nine feet from the ground; this set was taken by F. Baines; I have another set of five eggs that was taken at Hamilton Inlet, Labrador, May 24th, 1896; this nest was built in a spruce tree top. (*W. Raine*.)

MUSEUM SPECIMENS.

Four; one taken at Ottawa, Ont., and presented to our museum by Mr. S. Lett; another procured at Fort Churchill Hudson Bay by Dr. R. Bell; one at Jasper House, Rocky Mountains, June 14th, 1898, by W. Spreadborough; and one taken by the writer at Laggan, Rocky Mountains, July 20th, 1885.

CXL. **SPEOTYTO** GLOGER. 1842.378. **Burrowing Owl.**

Speotyto cunicularia hypogæa (BONAP.) COUES. 1872.

A specimen of this bird was caught by Mr. D. Breakey, Wolfe Island, in the fall of 1894, and kept by him alive for a short time, then preserved by Mr. W. Stratford of Kingston. His attention was drawn to its presence by the noise some crows were making in the bush, and on proceeding to the spot, he had no difficulty in capturing the owl. This is probably the first record of this bird's appearance in eastern Ontario. (*Rev. C. J. Young.*) First observed at a point on the International Boundary Line, a little east of Frenchman's River, not far from the mouth of Milk River, where a few individuals inhabited a small settlement of prairie dogs (*Cynomys ludovicianus*). This seems to be about the northern limit of the species, and it is nowhere so abundant in this region as in many places further south. It was met with a second time a little west of Frenchman's River, and for the third time, in somewhat greater numbers, on a piece of prairie near Sweetgrass Hills. There were no prairie dogs here or at the locality last mentioned, so far as I know, but the ground was riddled with the burrows of the tawny marmot (*Spermophilus richardsoni*), which seemed to suit the owls just as well. (*Coues.*) I found this bird breeding in Assiniboia at Rush Lake, June 12th, 1891. I have only once taken the trouble to dig down to its eggs. It took two of us nearly an hour to get at the nest, which consisted of a hollow lined with cow dung and contained 7 eggs. The burrow went down three feet and then ran along another four feet to the nest. (*W. Raine.*)

On June 23rd, 1896, three pairs were found occupying holes on the prairie a little north of Moose Jaw, Assa. The nests were not dug out, but the birds were nesting; in June, 1895, along Frenchman's River, Assa., this species was occasionally seen. In May,

1894, Mr. Spreadborough took specimens at Medicine Hat and Crane Lake, Assa., and in May, 1890, secured one at Revelstoke, B.C.; he also found a number of pairs breeding at Kamloops, B.C., in June, 1889. (*Macoun.*) I have three records of this species west of the Coast Range, B.C. East of this range it is a tolerably common breeder in the semi-arid interior. (*Brooks.*) East of the Coast Range in British Columbia; not common. I have only found it in the neighbourhood of Kamloops, but have heard of it at Ashcroft. (*Fannin.*) A special trip was made in the vicinity of Kamloops and Ashcroft for this species, but no trace remained of the colonies once existing there. The last pair known to remain in that locality lived in a badger's burrow on the bank of Thompson River, near the ferryman's house. None have been seen at Kamloops or Ashcroft since 1890. (*Rhoads.*)

MUSEUM SPECIMENS.

Three; two taken at Kamloops, B.C., June, 1889, one taken at Revelstoke, B.C., May 15th, 1890, by W. Spreadborough.

One set of four eggs taken at Moose Jaw, Assa., by Mr. W. Raine, May 28th, 1893.

CXLI. **GLAUCIDIUM** BOIE. 1826.379. **Pigmy Owl.**

Glaucidium gnoma WAGL. 1832.

Common throughout British Columbia. (*Fannin.*) Interior British Columbia birds secured at Vernon are true *gnoma*. Mr. Pound says they winter there. (*Rhoads.*) Observed one, September 10th, 1902, on the highest peak of John Bull Mt., at over 7,000 feet altitude, near Salmon River, B.C. (*Spreadborough.*)

MUSEUM SPECIMENS.

One taken on September 10th, 1902, on the International Boundary, east of the Columbia River, by W. Spreadborough.

379a. **California Pigmy Owl.**

Glaucidium gnoma californicum (SCL.) A. O. U. CHECK-LIST. 1889.

Southern coast region of British Columbia. (*Fannin.*) Mr. Brewster informs me that all the British Columbian specimens

which I have sent him are referable to this subspecies. Common resident at Chilliwack, Fraser valley; common in winter at Lake Okanagan, B.C. (*Brooks*.) A number of specimens taken at Chilliwack, B.C., in the autumn of 1901; one specimen taken near Victoria, V.I., April, 1887. (*Spreadborough*.) Numerous west of the Coast Range, B.C. (*Rhoads*.)

MUSEUM SPECIMENS.

Five; our specimens have been identified by Mr. Frank Chapman of the Museum of Natural History, New York. Two were taken at Hastings, Burrard Inlet, B.C., in April, 1889; three others at Chilliwack, B.C., in October, 1901, by W. Spreadborough.

ORDER COCCYGES. CUCKOOS AND KINGFISHERS.

FAMILY XXXII. CUCULIDÆ. CUCKOOS.

XLII. COCCYZUS VIEILLOT. 1816.

387. Yellow-billed Cuckoo.

Coccyzus americanus (LINN.) BONAP. 1824.

Very rare in Nova Scotia, one taken near Halifax. (*Downs*.) A rare summer resident in New Brunswick. (*Chamberlain*.) Accidental visitant; rare. A few examples of this species have been shot on the island of Montreal. I am not aware of any occurring of late years. (*Wintle*.) A rare summer resident in Quebec. (*Dionne*.)

A summer resident at Ottawa, Ont. A pair nested in Lt. Col. White's garden in the city in 1890. (*Ottawa Naturalist*, Vol. V.) This species is rather scarce and not generally distributed in Ontario, and is believed to be more southern in its habit than the black-billed cuckoo. (*McIlwraith*.) Rather common summer resident at Toronto, Ont., where it breeds: I have met with it nesting at Rosseau, and I believe it occurs at Emsdale in the Parry Sound and Muskoka districts. (*J. H. Fleming*.) Formerly much more common than at present; it is not usual to find more than a single pair of birds in a suitable small piece of woods. Their habit of having eggs and young in the same nest is well known. (*W. E. Saunders*.)

BREEDING NOTES.—Occasionally met with along the St. Lawrence, and as far north as the county of Renfrew, Ontario. This bird is readily distinguished from the black-billed cuckoo by its larger size and the amount of white it shows in the outer tail feathers as it flies along. There are other peculiarities which distinguish it from the next species. I have found it to breed in the county of Leeds at least a week or ten days earlier. Its nest also is further from the ground and very loosely put together. I have found its nest five times. The last two near Lansdowne, Ont., May 29th, 1898, and May 23rd, 1899. Each contained three eggs, incubation advanced. They are plainly larger and paler than eggs of the black-billed. A nest I found in May, 1888, near Renfrew, Ont., contained one egg. This nest was placed in a willow. (*Rev. C. J. Young.*) Twenty years ago this species was rather rare, but now it is more common than the black-billed and the latter is less so than formerly. It is rarer in the Bruce peninsula where I have seen it but twice. It does not appear to lay more than four eggs in the largest set, while the black-billed sometimes has as many as six. (*W. E. Saunders.*) A summer resident around Toronto, Ont., but rather scarce. A pair nest every season a short distance from my house at Kew Beach. It is a late breeder, seldom having eggs before the middle of July. On July 20th, 1895, I found a nest containing two eggs at Kew Beach. The nest was built in a maple tree twelve feet from the ground. (*W. Raine.*) Nest taken at Ottawa, Ont., composed of twigs, leaves, rootlets and catkins, lined with some soft vegetable material. Eggs in sets of four to six of a pale greenish colour. (*G. R. White.*)

MUSEUM SPECIMENS.

Only one specimen in our museum, purchased with the Holman collection in 1885. We have two sets of four eggs each. One taken by Dr. James Fletcher at Ottawa and the other in High Park, Toronto, by Mr. W. Raine. Nest six feet from the ground in a maple, composed of twigs, pine needles, and leaves.

387a. **California Cuckoo.**

Coccyzus americanus occidentalis RIDGW. 1887.

While being transferred across the Fraser River at Mount Lehman we passed near an island where I heard the unmistakable notes of a cuckoo; I directed the boat to the spot and the bird

was seen, but not taken. (*Streator.*) In May, 1881, I saw one of these birds at Burrard Inlet, and in June, 1882, the late Mr. J. C. Hughes found a pair breeding at Kamloops; in June, 1887, I saw a pair at Skinner's swamp near the city of Victoria, and from their actions I concluded they were breeding in that locality; later in the same year one was shot on Mount Tolmie. (*Fannin.*) Tolerably common summer resident at Chilliwack, and becoming more abundant in the coast region every year, probably on account of the invasions of the forest tent caterpillar. (*Brooks.*)

388. Black-billed Cuckoo.

Coccyzus erythrophthalmus (WILS.) BONAP. 1824.

Audubon, Vol. IV., p. 301, states that they saw a few individuals in clumps of low trees a few miles from the shore of the Gulf of St. Lawrence. (*Packard.*) Not very common; a summer resident in Nova Scotia. (*Downs.*) Fairly common at Wolfville, King's Co., N.S., from May to September. (*H. Tufts.*) Never seen around St. John, New Brunswick, but common inland in summer. (*Chamberlain.*) A tolerably common summer resident, York Co., New Brunswick. (*W.H. Moore.*) Common summer resident. Breeds in Mount Royal Park, Montreal, Que. (*Windle.*) Summer resident in Quebec; taken at Beauport. (*Dionne.*) Common summer resident around Ottawa, Ont. (*Ottawa Naturalist*, Vol. V.) This species is a regular summer resident in Ontario, and though not abundant is generally distributed. (*McIlverraith.*) Fairly common around Toronto, and breeds; generally distributed over the Parry Sound and Muskoka districts. (*J. H. Fleming.*) On July 6th, 1900, one specimen came into the potato patch at C  che Lake, Algonquin Park, and fed on the potato bugs. (*Spreadborough.*) This species is a common summer resident throughout the wooded part of Manitoba and has been taken by myself at Carberry and Shoal Lake, near Duck Mountain. (*Thompson-Seton.*) Apparently a rare species west of Manitoba. A female was first seen at Indian Head, Assa., June 24th, 1892, in a willow thicket; in a few days another female was seen and shot and an egg was found in her oviduct, which shows that the species breeds there. On the 19th May, 1894, one was seen at Medicine Hat, Assa., and another in the same place on June 3rd. None seen further west. (*Spreadborough.*)

BREEDING NOTES.—Summer resident, common. Breeds in Mount Royal Park. I have found their nests, containing eggs, from June 4th to July 22nd. Observed here from May 21st to September 5th. Their nests are generally built in thorn bushes, from one to eight feet above the ground, but small cedar trees are favourite building sites for them as well. This bird appears to have a remarkable habit of laying fresh eggs while those already laid are being incubated and hatched. The naked younglings are black in colour, and repulsive looking, but they harmonize with the nest, which is a slight structure of dead twigs, with a very shallow cavity, lined with a few dead leaves, the nest being very small for the size of the bird and its eggs. The cuckoo seems to prefer solitude, and keeps itself out of sight in thickets, where its harsh notes can be heard sounding like "cow-cow" or "cuckucow" repeated quickly several times. (*Windle.*)

A very common species in all the counties of eastern Ontario, especially at the foot of Lake Ontario, where early in June I have seen six or seven together. In 1897 I heard it at Pictou, Nova Scotia, and it was observed on the Magdalen Islands in June, 1900. It usually builds a nest in a swampy thicket; twice I have found the nest almost on the ground, once in an elm sapling six feet above, but this is very unusual. The average time for laying is the end of the first week in June in eastern Ontario. Usually I have found two or three eggs in a nest, but once five, and June 13th, 1900, seven. This bird appears to arrive later in spring than the yellow-billed and certainly goes away earlier in the fall, from which I suppose it migrates further south. (*Rev. C. J. Young.*) A summer resident around Toronto, Ont. I have several times seen its nest. I have also found it breeding in Manitoba and in Assiniboia as far west as the Qu'Appelle valley. (*W. Raine.*) This bird nests in a low bush at Ottawa, Ont. Nest composed of twigs, strips of bark, dry grass and leaves, lined with grass. Eggs two to five of a light greenish blue. (*G. R. White.*)

In the transactions of the Canadian Institute, Vol. I. pp. 48-50, an interesting account by Dr. C. K. Clarke of this cuckoo laying its eggs in the nests of other birds is published. Three cases are noted, and there is no doubt in the mind of the writer that the facts are as recorded by Dr. Clarke. All the cases were noted at Elora, Ont. In the first case an egg was laid in the nest of a chipping sparrow from which in due time a young cuckoo was

hatched. In the second case a cuckoo was seen coming from a yellow warbler's nest. Upon examination an egg was found to have been laid, and later on the young cuckoo was found with the young warblers which, as the cuckoo grew, were crowded from the nest. In the third case cited a cuckoo was actually found sitting on a chipping sparrow's nest. An egg was laid and hatched the young sparrows were finally ejected from the nest by the young cuckoo.

MUSEUM SPECIMENS.

Four; two were taken at Ottawa, one at Toronto, Ont.; the fourth by Mr. W. Spreadborough at Medicine Hat, Assa., May 21st, 1894.

Two sets of four eggs each, taken at Kew Beach, Toronto, by Mr. W. Raine. Nest made of twigs and rootlets in a tree five feet from the ground. One set of four taken at Cyrville, near Ottawa, by Mr. W. Anderson. Nest in a balsam fir about five feet from the ground, built of twigs and leaves.

XLIH. CUCULUS LINNÆUS. 1758.

388-1. **Kamchatkan Cuckoo.**

Cuculus canorus telephonus (HEINE). STEJN. 1885.

An adult male of this species was collected on the sand dunes of Northeast Point, St. Paul Island, Behring Sea, on July 4th, 1890. (*The Auk*, Vol. XI., p. 325.)

FAMILY XXXIII. **ALCEDINIDÆ.** KINGFISHERS.XLIV. **CERYLE** BOIE. 1828.390. **Belted Kingfisher.**

Ceryle alcyon (LINN.) BONAP. 1837.

A summer visitor to Northwest River, Labrador, where it breeds. Drexler obtained a specimen May 26th, 1860, at Moose Factory, James Bay. (*Packard*.) Common all along the Moose River to Moose Factory. None seen farther north in 1896. (*Spreadborough*.) Tolerably common in Newfoundland during the summer months. (*Reeks*.) Abundant along the Humber River, Newfoundland. (*L. H. Porter*.) Very common in Nova Scotia, breeding all over the province. (*Downs*.) An abundant summer

resident in New Brunswick. (*Chamberlain.*) Tolerably common summer resident in York Co., N. B. (*W. H. Moore.*) Common summer resident in Quebec, taken at Beauport. (*Dionne.*) Observed at Gaspé Bay and Mingan Harbour, Que., rather common in the latter locality. (*Brewster.*) Specimens obtained at York Factory and at Fort Churchill, Hudson Bay, where it is rare. (*Dr. R. Bell.*) Common at Lake Mistassini, northern Quebec; breeds, (*J. M. Macoun.*) Rather common on Prince Edward Island at Brackley Beach, 1888. Rather common on Cape Breton Island, July, 1898. (*Macoun.*) Summer resident in the Magdalen Islands. (*Bishop.*) Very common in the valley of the Restigouche, N.B. (*Brittain & Cox.*) Abundant summer resident at Ottawa; breeds. (*Ottawa Naturalist*, Vol. V.) This bird is generally distributed throughout Ontario, arriving in April and leaving in September. (*Mellivraith.*) This species is abundant in Algonquin Park; there were five nests in a railway ballast pit at Cûche Lake in 1900. (*Spreadborough.*) Breeds near Toronto. Ont.; abundant everywhere in the Muskoka and Parry Sound districts. (*J. H. Fleming.*) During the winter of 1894, three of these birds spent the winter near a secluded stream a few miles north of Toronto, Ont. (*J. Hughes-Samuel.*) Common on every stream and river. They are observed so late in the fall and so early in spring that they must winter near London. A few have been observed in the winter at London and more often nearer Lake Erie. (*W. E. Saunders.*) A common summer resident along all fish-frequented streams and lakes in Manitoba. It arrives towards the last of April and leaves when the winter sets in. I have never seen this species in the vicinity of any of the drainage lakes, although they abound in *Amblystomæ*, insects, etc., to the exclusion, however, of fish. (*Thompson-Seton.*) This species is more widely distributed or more easily seen than any other species noted between Manitoba and the Pacific Coast. In 1892, 1894 and 1895 it was found on all streams visited in the prairie region; common on the Saskatchewan and its northern tributaries in 1896; on all streams south of Calgary in 1897; abundant at Banff in 1891; in 1890 it was found on the Columbia between Revelstoke and the International Boundary; in 1889 from Revelstoke to the coast at the mouth of the Fraser river; in 1893 it was found common everywhere by streams on Vancouver Island; in 1898 Mr. Spreadborough found it abundant on the upper Athabasca; in 1901 rather rare on Chilliwack river and

lake and in 1902 at Trail, B.C. (*Macoun.*) This bird frequents all the large rivers in the Northwest Territories up to the 67th parallel, being more common, however, in the interior than on the sea coast. It is a solitary bird and is generally observed sitting on the stump of a tree that projects over the river. (*Richardson.*) Common at Athabasca Landing and up the Athabasca River to Lesser Slave River in June, 1888; also down the Athabasca River to Fort McMurray, and up the Clearwater River; also common from Methye Portage to Isle à la Crosse. (*J. M. Macoun.*) North to Peel's River, mouth of Mackenzie River; common. (*Ross.*) Although several birds were seen on the Anderson River and elsewhere no nests were ever taken. (*Macfarlane.*) Several specimens of this bird were brought me from the lower Yukon, where it is a regular summer visitor. It is found the entire course of this river, reaching the shores of Behring Sea from the Yukon mouth north to the head of Norton Bay. (*Nelson.*) A single specimen of this bird was obtained at Fort Yukon. It is said to be common along the entire Yukon River and is a summer visitant only. (*Turner.*) Very abundant in British Columbia. (*Lord.*) Found abundant everywhere in British Columbia. (*Streator.*) An abundant resident throughout the province. (*Fannin.*) Common resident at Chilliwack, B.C. (*Brooks.*) Tolerably common along the coasts of Sitka, Alaska; after its first appearance, July 28th, one or two individuals were noted daily at our winter camp on the Kowak, Kotzebue Sound, Alaska, during the last week in August. The last was seen on September 2nd, 1898, and the first seen the following spring, May 21st. (*Grinnell.*)

BREEDING NOTES.—Summer resident, common. Breeds in suitable places on the island of Montreal. Two eggs taken May 24th, 1882, out of a burrow in a sandbank at Hochelaga. Observed here from May 8th to September 27th. (*Wintle.*) This is a common bird in eastern Ontario. Its nest is generally found in a sandy bank near water, but on two occasions I have found its nest in a sand pit some distance away. The full complement of eggs I have always found to be seven. These are laid between the 20th and 28th of May. I met with this bird in the Magdalen Islands in 1897, and found it breeding there. (*Rev. C. J. Young.*)

I have found this bird a common summer resident from the Atlantic to the Pacific. I first met with the species in May, 1886,

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at Quebec. During June, 1890, I found it exceedingly abundant on the River Thames between Chatham and Lake St. Clair, in western Ontario. In June, 1893, I found it common at Banff, on the Bow River, and a week later found it common at Vancouver, B.C. This species nests abundantly on the shores of Lake Ontario, laying never more than seven eggs at the end of a tunnel in a bank. The tunnel is often three or four feet in length. (*W. Raine.*) Nests taken at Ottawa, Ont., always a hole in a bank from four to eight feet deep. (*G. R. White.*)

Common resident throughout Vancouver Island. Nests in holes in banks, usually near water, but I have seen a few nests more than half a mile from water. (*Spreadborough.*)

MUSEUM SPECIMENS.

Ten; taken at Toronto and Ottawa, Ont.; Banff, Alta.; Revelstoke, Sicamous, Agassiz and Chilliwack, B.C. One specimen taken at Dow's Lake, Ottawa, was presented by Mr. W. E. Saunders, London, Ont.

Two sets of eggs of seven each. One taken out of a sandbank at the head of Fairy Lake, Hull, Que.; and the other near Victoria, Vancouver Island, by Rev. G. W. Taylor.

ORDER PICI. WOODPECKERS, WRYNECKS, &C.

FAMILY XXXIV. **PICIDÆ**. WOODPECKERS.XLV. **DRYOBATES** BOIE. 1826.393. **Hairy Woodpecker.**

Dryobates villosus (LINN.) CABANIS. 1863.

One seen at Hebert River, Dec. 8th, and one at Shulee, Jan. 2nd, Cumberland Co., Nova Scotia. Winter of 1897-98. (*C. H. Morrell.*) Strangely enough, although the distribution of the present bird is eastern, and although in northern Alaska and the interior of British America it is replaced by a large northern form, yet the typical *villosus* also occurs in British Columbia and thence north along the southeastern coast of Alaska. (*Nelson.*)

393a. **Northern Hairy Woodpecker.**

Dryobates villosus leucomelas. (BODD.) RIDGW. 1885.

Tolerably common in Newfoundland as a resident. (*Reeks.*) Fairly common along the Humber River, Newfoundland. (*L. H.*)

Porter.) Resident in southern portions of Labrador; probably does not occur north of the "height of land." (*Packard.*) Observed all along the Moose River to Moose Factory, James Bay. None seen further north in Labrador in 1896. (*Spreadborough.*) York Factory, Hudson Bay. (*Dr. R. Bell.*) Taken at Fort Churchill, Hudson Bay (*Clarke.*)

Common resident in Nova Scotia. (*Downs.*) Fairly common throughout the year at Wolfville, King's Co., N.S. (*H. Tufts.*) Common resident at Sydney, Cape Breton Island, N.S. (*C. R. Harte.*) Summer resident Prince Edward Island and Cape Breton Island. (*Macoun.*) Abundant throughout the year in New Brunswick. (*Chamberlain.*) Permanent resident; breeds; rather common, York Co., N.B. (*W. H. Moore.*) Uncommon in the valley of the Restigouche, N.B. (*Brittain & Cox.*) One specimen seen on Grindstone Island, Magdalen Islands. (*Bishop.*) Taken at Beauport; a common resident in Quebec. (*Dionne.*) A transient and scarce visitant in the vicinity of Montreal. I do not think this species breeds in the vicinity of Montreal, as I have only seen it in the months of October and November. (*Windle.*) A common resident around Ottawa. (*Ottawa Naturalist*, Vol. V.) A resident, though not an abundant species throughout Ontario; more abundant at the north. (*McIlwraith.*) It is a question which form the Ontario bird is but I believe it to be the northern form; it breeds abundantly in the district of Parry Sound often choosing a dead pine to nest in; it is very fond of districts where the trees have been killed by fire; the young are hatched early in June. (*J. H. Fleming.*) Fairly abundant at Whitney on the Parry Sound Railway during December, 1898. (*J. Hughes-Samuel.*) Common and breeding in the Algonquin Park, Ontario, July, 1900. (*Spreadborough.*)

A common resident in Manitoba in the poplar forest. (*Thompson-Seton.*) This is a rare species on the margin of the prairie as only two were seen at Indian Head in the spring of 1892, and one at Medicine Hat in 1894. A tolerably common resident at Edmonton, Alta.; not uncommon in the foothills from Calgary south to Crow's Nest Pass in the Rocky Mountains. Common at Agassiz and Burrard Inlet, B. C., in May, 1889. (*Spreadborough.*) Common at Grand Rapids on the Saskatchewan. (*Nutting.*) This species exists as far north as Lat. 63°. It remains all the year in the Northwest Territories and is the

commonest species up to the fifty-sixth parallel, north of which it yields in frequency to the three-toed species. (*Richardson.*) North to Fort Simpson, on the Mackenzie River; common. (*Ross.*) This form, if it reaches the coast of Behring Sea at all, reaches it by the way of the Northwest Territories. The specimen in my collection was taken at Fort Reliance, on the upper Yukon, about Lat. 66°, and undoubtedly the bird straggles still further to the north. (*Nelson.*) Common throughout the interior of British Columbia; breeds. (*Streator.*) East of the Coast Range, B.C.; a common resident. (*Fannin.*) A common species in winter at Lake Okanagan, B.C.; tolerably common in the Cariboo district; I have taken this form several times in the lower Fraser valley. (*Brooks.*) In a series of eight skins from British Columbia, one, a young female, lacks the white spotting on the wing coverts characteristic of *leucomelas*. (*Rhoads.*)

The last references mentioned here evidently belong to the form the writer places under *hyloscopus*.

BREEDING NOTES.—On June 11th, 1883, while in the spruce bush I heard a curious chirping sound that scarcely ever seemed to cease. I traced it to a small poplar tree, in whose trunk was a hole about 30 feet from the ground. Having procured an axe I soon had the tree down and found myself in possession of a nest of young hairy woodpeckers. They were in a hole, evidently the work of the parent birds, about a foot deep, 3 inches wide inside and 2 at the entrance. The four youngsters were nearly grown and fledged, and consequently were much crowded in this narrow chamber. Three of them were precisely like the mother-bird in colour and the fourth differed only in having over each ear a cockade of rich yellow. (*Thompson-Seton.*) A plentiful species in Ontario where I have met with it both in summer and winter. At the latter season it is often seen on wood piles in the vicinity of houses. It breeds along the St. Lawrence and northward. Unlike the other woodpeckers it is an early breeder, commencing its nest-hole the end of April and usually having its complement of eggs laid by May 6th. Most of the nests I have seen have been in wet places or near water, and almost all were in white ash trees, from thirty to fifty feet from the ground. Two nests were in elm trees and one in a telegraph pole by the roadside not more than ten feet from the ground. In this nest-hole

the young were hatched by the 22nd of May. (*Rev. C. J. Young.*) Breeds in fair numbers in summer and is our most common woodpecker in winter. Not yet observed to use dead trees for nesting. This species drums on resonant limbs in spring, but not so commonly as the downy woodpecker. It is an exceedingly early breeder, excavating its dwelling-house in April, and indeed often laying the eggs in the same month, while large young are always to be found by May 24th. (*W. E. Saunders.*) Found breeding at Long Lake, Manitoba, June 16th, 1894. On May 31st, 1901, found a nest containing four eggs at Yorktown, Assa. The eggs were laid in a hole in a tree about ten feet from the ground. I found another nest containing six eggs in a hole in a poplar about 15 feet from the ground. I am not aware that the nest and eggs of this species have been previously described so will give the measurement of the egg. The average size of 18 specimens before me is .98 x .70. (*W. Raine.*)

MUSEUM SPECIMENS.

Seven; taken at Ottawa and Bracebridge, Ont. Two of these were taken at Ottawa by Mr. F. A. Saunders, and the others by Mr. W. Spreadborough.

Only one set of eggs, taken near Toronto, and presented by Mr. W. Raine.

393c. **Harris's Woodpecker.**

Dryobates villosus harrisi (AUD.) RIDGW. 1885.

A few seen in the scattering timber in the vicinity of Sitka, Alaska, where they doubtless breed. (*Grinnell.*) Vancouver Island, Sumas and Osyoos; winters on Vancouver Island. (*Lord.*) Abundant everywhere throughout the coast region; breeds. (*Streator.*) West of the Coast Range, especially coastwise, a common resident. (*Fannin.*) Common resident at Chilliwack, B.C. (*Brooks.*) One shot in Lat. 49°, Aug. 24th, 1874. Found only in the Rocky Mountains. (*Coues.*) Taken at Agassiz and Hastings, B.C., in 1889; common at Chilliwack and Huntington; also a few seen at McGuire's on the Chilliwack River, B.C.; a common resident throughout Vancouver Island. (*Spreadborough.*)

Three of nine specimens have unspotted wing coverts, the rest are spotted in varying degrees, but less so than the darkest examples of *villosus*. (*Rhoads.*)

MUSEUM SPECIMENS.

Twelve; all taken by Mr. Spreadborough. They were secured at Agassiz, Chilliwack and Burrard Inlet, B.C., and Victoria, Vancouver Island.

393d. **Cabanis's Woodpecker.**

Dryobates villosus hyloscopus (CAB.) BREWST. 1888.

Under this form we place a few skins examined by Mr. F. Chapman and labelled "approaching *hyloscopus*." They come exactly between the western and eastern forms and include the whole Rocky Mountain region.

This form was common at Canmore and Banff in the Rocky Mountains in the summer of 1891. Very common at Revelstoke, B.C., in burnt woods in April, 1890. Not uncommon at Kamloops, B.C., in June, 1889. Mr. Spreadborough reports seeing a hairy woodpecker at Trail, Cascade and Waneta, B.C., on the 49th parallel in the summer of 1902. It was doubtless this form. (*Macoun*.) Near Little Salmon River, Yukon River, Yukon district, N.W.T. (*Bishop*.)

MUSEUM SPECIMENS.

Five; taken at Canmore, Alta., in May, 1891; at Revelstoke, B.C., in April, 1890, and at Kamloops, June 18th, 1889, by Mr. Spreadborough.

393f. **Queen Charlotte Woodpecker.**

Dryobates villosus picoides (OSGOOD.) A. O. U. COMM. 1902.

Queen Charlotte Islands, British Columbia. (*Osgood*.)

394. **Downy Woodpecker.**

Dryobates pubescens medianus (SWAINS.) BREWSTER. 1897.

Very common in Newfoundland and a resident. (*Reeks*.) Fairly common along the Humber River, Newfoundland. (*L. H. Porter*.) Common and resident in southern portions of Labrador; probably does not range north of Lat. 56°. (*Packard*.) Only one specimen observed on Moose River, June 6th, 1896; none in Labrador. (*Spreadborough*.) Seen during the winter at Lake Mistassini, northern Quebec. (*J. M. Macoun*.)

Rather common resident in Nova Scotia. (*Downs.*) Common throughout the year at Wolfville, N.S. (*H. Tufts.*) Common resident at Sydney, Cape Breton Island, N.S. (*C. R. Harte.*) On trees in woods, Brackley Point, Prince Edward Island, 1888; also in woods, Cape Breton Island, 1898. (*Macoun.*) A common resident, Cumberland Co., Nova Scotia, winter of 1897-98. (*C. H. Morrell.*) Abundant throughout the entire year in New Brunswick. (*Chamberlain.*) A tolerably common permanent resident, breeds, York Co., N.B. (*W. H. Moore.*) Very rare in the Restigouche valley, N.B. (*Brittain & Cox.*) One seen on Grindstone Island, Magdalen Islands. (*Bishop.*) One pair was found nesting at Fox Bay, Anticosti, Que., in July. (*Brewster.*) Taken at Beauport; common resident in Quebec. (*Dionne.*) A common and permanent resident in the Montreal district; breeds in Mount Royal Park; scarce during the winter months but plentiful in the spring of the year. (*Wintle.*)

An abundant resident in the Ottawa district, but more common in spring and summer. (*Ottawa Naturalist*, Vol. V.) A common resident in Ontario, but more common in spring and fall migrations. (*McIlwraith.*) This species breeds near Toronto but is much more common in the Muskoka district. (*J. H. Fleming.*) I found this species abundant at Whitney, Parry Sound Railway, during November and December, 1898. (*J. Hughes-Samuel.*) Breeding but not common in Algonquin Park, Ont., July, 1900. (*Spreadborough.*) Common in spring, summer and fall, but only a few remain through the winter. I once found a male of this species diligently digging a hole in a small stump in October, presumably for winter quarters. (*W. E. Saunders.*)

A tolerably common resident in the wooded sections of Manitoba, but is scarce in the more southern portion. (*Thompson-Seton.*) Only a few specimens were seen at Indian Head, Assa., in 1892: one specimen was taken at Medicine Hat, Assa., April 12th, 1894. Observed one April 22nd, 1897, at Edmonton, Alta.; saw another on the 29th; apparently quite rare; one seen at Crow's Nest Pass in July. Specimens were taken at Banff, Alta., in August, 1891. (*Spreadborough.*)

REEDING NOTES.—I have occasionally seen this bird in the winter, but not so often as the hairy. It breeds later; most of the nests I have seen contained fresh eggs the last week of May, although once I found young birds at that date. (*Rev. C. J.*

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Young.) On May 21st, 1900, I found this bird nesting abundantly in the woods north of Waterloo, Ont. Almost every decayed stub or broken tree contained a nest of five to six eggs. (*W. Raine.*) Nests in trees near Ottawa, Ont. Nest always in a hole in a tree or stump, composed of chips and dust. Eggs four to five, pure white. (*G. R. White.*)

MUSEUM SPECIMENS.

Ten; two taken at Ottawa by Mr. F. A. Saunders; three at Bracebridge, Ont., one at Medicine Hat, Assa., and one at Banff, Alta., by Mr. W. Spreadborough; one taken at Edmonton, Alta., by Mr. Dowling.

One set of eggs taken at Port Hope, Ont., May 30th, 1899, by Mr. M. Macking. Nest in a cavity in an apple tree in an orchard. Eggs laid on chips at the bottom of the cavity four feet from the ground.

394a. **Gairdner's Woodpecker.**

Dryobates pubescens gairdneri (AUD.) RIDGW. 1885.

General west of Coast Range. (*Lord.*) Rather common throughout the coast region; breeds. (*Streator.*) A common resident west of the Coast Range; winters on Vancouver Island. (*Fannin.*) Common resident at Chilliwack, B.C. (*Brooks.*) At Revelstoke this species was found with Batchelder's woodpecker, but further down the Columbia River at Robson and Deer Park, the specimens taken were all of this form. It was next found at Agassiz in the Fraser River valley, and at Chilliwack and Huntington, B.C., in 1901. On Vancouver Island it is resident and very abundant. (*Spreadborough.*)

MUSEUM SPECIMENS.

Eleven; one taken at Robson on the Columbia River, one at Agassiz, and four at Chilliwack in the Fraser River valley, B.C., also four at Victoria, Vancouver Island, all by Mr. Spreadborough.

394b. **Batchelder's Woodpecker.**

Dryobates pubescens homoroux (CAB.) RIDGW. 1896.

Very common throughout the interior of British Columbia along the C.P.R. (*Streator.*) Common around Lake Okanagan, B.C.,



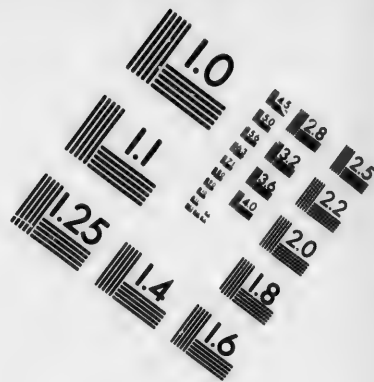
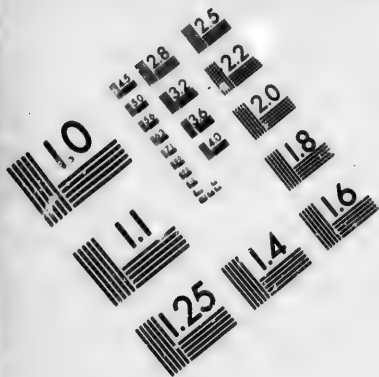
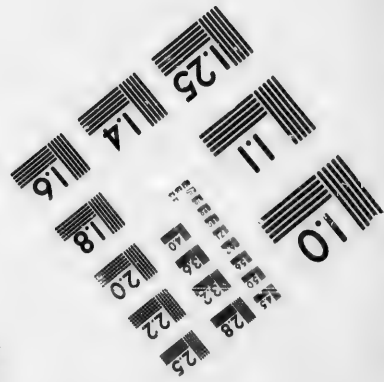
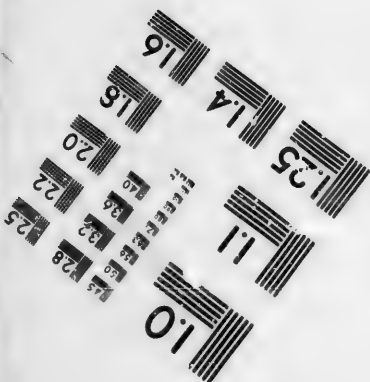
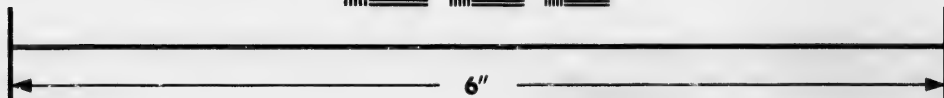
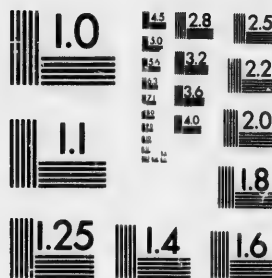


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in winter. (*Brooks.*) We have not found this species further east than the Columbia River at Robson, B.C., where a specimen was taken, and another at Revelstoke in April, 1891. It was common at Kamloops and Spence's Bridge, B.C., in June 1889. These are the only points where found by us. (*Macoun.*),

MUSEUM SPECIMENS.

Three ; one taken at Revelstoke on the Columbia River, B.C., and two taken at Kamloops, in the dry interior of B.C., June 18th, 1889. All by Mr. Spreadborough.

394d. **Nelson's Downy Woodpecker.**

Dryobates pubescens nelsoni OBERHOLSER. 1895.

We place here without remark all references to the downy woodpecker of the northern parts of Canada and Alaska. We have no specimens.

This species is a constant inhabitant of the Northwest Territories up to Lat. 58°. It seeks its food principally on the maple, elm and ash, and north of Lat. 54°, where these trees do not grow, on the aspen and birch. (*Richardson.*) North to Fort Laird, Lat. 61°; not rare. (*Ross.*) A few specimens were observed on the Athabasca River, Alta. Rare between Methye Lake and Isle à la Crosse. (*J. M. Macoun.*) Throughout Alaska where woodland or a growth of bushes and small trees occurs the present bird is certain to be found, and is a resident, winter and summer. (*Nelson.*) This species ranges throughout the wooded districts of Alaska. Along the Yukon River it is very common. (*Turner.*) Alaska and northern British America. (*Oberholser.*)

All our skins of *D. pubescens* and its sub-species have been examined by Mr. F. Chapman of New York Museum of Natural History.

XLVI. **XENOPICUS** BAIRD. 1858.399. **White-headed Woodpecker.**

Xenopicus albolarvatus (CASS.) MALHERBE. 1862.

A rare and beautiful species ; obtained only east of the Coast Range. (*Lord.*) Coast Range ; Similkameen valley, collected by R. V. Griffin. (*Fannin.*) I have heard of this species but never came across it at Lake Okanagan, B.C. (*Brooks.*) This bird has

a claim to notice in this paper solely on the evidence of woodsmen at Vernon, B.C., who assert they sometimes see a "little white-headed sapsucker" in the forests at the head of Lake Okanagan. (*Rhoads*.)

XLVII. **PICOIDES** LACÉPÈDE. 1801.

400. **Arctic Three-toed Woodpecker.**

Picoides arcticus (SWAINS.) GRAY. 1845.

Tolerably common in Newfoundland throughout the year. (*Reeks*.) Common along the Humber River, Newfoundland. (*L. H. Forter*.) Common and resident throughout the wooded portions of Labrador. (*Packard*.) Only one specimen seen on Moose River; none in Labrador in 1896. (*Spreadborough*.) Not a common resident in Nova Scotia. Prefers burnt forest. (*Downs*.) Rare winter visitant at Wolfville, N. S. (*H. Tufts*.) One observed at Baddeck, Cape Breton Island, June, 1890. (*F. A. Allen*.) Resides throughout the year but is uncommon in New Brunswick. (*Chamberlain*.) Rare in the Restigouche valley, N.B. (*Brittain & Cox*.) A common resident in York Co., N.B. (*W. H. Moore*.) A single specimen was seen near Gaspé, and another heard at the mouth of the Mingan River, Que. (*Brewster*.) Taken at Beauport; resident in Quebec. (*Dionne*.) A transient and scarce visitant; a few specimens taken around Montreal in October and November; common near Casselman, Ontario, about 90 miles west of Montreal in October. (*Wintle*.)

Possible resident in the Laurentian Hills north of the city of Ottawa, as it is seen around the city in September and October. (*Ottawa Naturalist*, Vol. V.) This is truly a northern bird, seldom even in winter coming as far south as the southern boundary of Ontario; it is resident and quite common in Muskoka. (*McIlwraith*.) This woodpecker sometimes comes as far south as Toronto. I have several specimens taken here in winter. In the district of Parry Sound it is a common resident and one of the most interesting birds there, both from its nesting habits and from its utter unconsciousness when approached. (*J. H. Fleming*.) Common in Algonquin Park in the summer of 1900. A pair nested in a telegraph pole quite near Cache Lake station of the Parry Sound Railway. (*Spreadborough*.) Feeding on dead maples at Kiladar, Addington Co., December, 1894; very plenti-

ful at Whitney on the Parry Sound Railway during the fall of 1898, and feeding principally on the yellow birch; I have seen an occasional specimen taken near Toronto. (*J. Hughes-Samuel*.) A few only have been taken in the London district. (*W. E. Saunders*.)

A common resident in the woods in Manitoba and northward. (*Thompson-Seton*.) Not uncommon in the woods at Banff, Rocky Mountains; observed several in the foothills southwest of Calgary in July, 1897, and in the Crow's Nest Pass, Alta.; common and breeding at Revelstoke, B.C., in 1890. (*Spreadborough*.) This species is rather rare in the Northwest Territories and was only observed on the eastern slope of the Rocky Mountains, where the common species was also procured. (*Richardson*.) North to Fort Simpson; rare. (*Ross*.) It is believed that this species breeds and also winters in the Arctic regions. One nest was found in May, 1863, that was believed to belong to this species. (*Macfarlane*.) One specimen at Athabasca Landing, Alta., May 25th, 1888. Common on Methye Portage; not rare between Methye Lake and Isle à la Crosse. (*J. M. Macoun*.) Very little appears to be known concerning the movements and habitat of this bird, especially in the north. I secured a single specimen which was brought to me from Fort Reliance on the upper Yukon. (*Nelson*.) Obtained only east of the Coast Range. (*Lord*.) Common at Ducks, near Kamloops, B.C., in August, when they are on their southward migration. (*Streater*.) East of the Coast Range; resident. (*Fannin*.) Common in suitable localities around Lake Okanagan, B.C., in winter; scarce throughout the winter in the Cariboo district, B.C.; the greater number seemed to emigrate southwards. This should be the western form lately described by Mr. Bangs, but specimens taken seemed to correspond in measurement with the typical form. (*Brooks*.)

BREEDING NOTES.—Frequently seen in the fall in the county of Renfrew, Ont., more early in the county of Leeds. In the latter county I have once seen this bird in a thick wood of pine and hemlock as late as the middle of May, and as the locality was rough and favourable to its habits, it may possibly have bred there, though I could not locate a nest. This was near Landon's Bay, River St. Lawrence. (*Rev. C. J. Young*.) This woodpecker has a habit of sometimes nesting in colonies. I saw the nests of

such a colony near Sand Lake in 1896; there were six or seven nests, each cut into the trunk of a living cedar, just below the first branch, and usually eight or ten feet from the ground. The cedars were in a dense forest overlooking a small stream that empties into Sand Lake. Four eggs seems to be the full set. The young are hatched by the 1st of June. (*J. H. Fleming.*) A common summer resident at Lake St. Joseph, Muskoka, Ont. From there I received a set of six eggs taken May 30th, 1899. Nest, a hole in a decayed pine tree fifteen feet from the ground. (*W. Raine.*)

MUSEUM SPECIMENS.

Nine; two taken in the township of Low, Gatineau valley, Que., October, 1901, and presented by Mr. Marler; two others taken near Ottawa by Mr. Herring, and four at Bracebridge, Ont., by Mr. Spreadborough.

401. **American Three-toed Woodpecker.**

Picoides americanus BREHM. 1831.

Common and resident throughout the wooded portion of Labrador. (*Packard.*) Scarcely so common as the preceding species in Newfoundland. (*Reeks.*) Taken at Fort Churchill, Hudson Bay. (*Clarke.*)

Through the kindness of Messrs. Edward and Robert Christie I visited their logging camp on March 16th. The camp is four miles in the spruce growth, about equal distance from River Hebert and Two Rivers, N.S. It was a favorite locality for many birds. While there I heard woodpeckers drumming and soon located three of this species. After drumming for some time they came down to the dry tops of spruces of previous cuttings which were everywhere, and worked about over them. They were very fearless and I stood within two yards of each in turn and watched them for some time. Two were males with golden crown; the third was evidently a female. These three were the only ones seen. (*C. H. Morrell.*) An occasional winter visitor in New Brunswick near St. John. (*Chamberlain.*) Have seen this species in northern New Brunswick. (*W. H. Moore.*) Taken at Beauport; a scarce resident in Quebec. (*Dionne.*) An old female and a brood of young seen in the woods at Ellis Bay, Anticosti, Que. (*Brewster.*) A transient visitant in the Montreal district but rare. It occurs in October and November. (*Wintle.*)

This species is rarer than the preceding but is seen in the vicinity of Ottawa every autumn and doubtless breeds to the north of the city. (*Ottawa Naturalist*, Vol. V.) This also is a northern species but is seldom taken in southern Ontario in the autumn though commoner northward. (*McIlwraith*.) Rare in the Parry Sound and Muskoka districts, only appearing in winter. Mr. Handy sent me a pair taken at Emsdale. One specimen of this species was shot on Well's Hill near Toronto, November 16th, 1901. It was seen in company with another, probably its mate. (*J. H. Fleming*.) While at Whitney during November and December, 1898, I looked very carefully for this species but only succeeded in taking one, which was feeding on a yellow birch in company with a party of *P. arcticus*. I obtained a second specimen of this species from the same place a few weeks later. (*J. Hughes-Samuel*.) Very rare in central Manitoba but probably general in the north and east. (*Thompson-Seton*.) This bird exists in all the forests of spruce-fir lying between Lake Superior and the Arctic Sea. It is the most common woodpecker north of Great Slave Lake. (*Richardson*.) A few specimens between Athabasca Landing, Alta., and Lesser Slave River. Rare between Methye Lake and Isle à la Crosse. (*J. M. Macoun*.) North of Fort Good Hope on the Mackenzie River. (*Ross*.) Much more common than the preceding species in Cariboo, B.C., in the winter of 1900. (*Brooks*.) Common and breeding in burnt woods at Banff, Rocky Mountains, alt. 5,500 feet, June, 1891. (*Spreadborough*.) This is probably *P. fasciatus*, as we have specimens of that species from Banff collected by Mr. Dippie in 1895.

401a. **Alaskan Three-toed Woodpecker.**

Picoides americanus fasciatus BAIRD, 1870.

In the country from Fort Simpson (on the Mackenzie River) north and west, including the lower Mackenzie and Anderson rivers, and all of northern Alaska, occurs this well marked race, which is characterized by the extent and amount of the white markings upon the dorsal surface, mainly in the form of barring. (*Nelson*.) Specimens of this form were obtained from Nulato and Fort Yukon on the Yukon River. The bird is a resident of the wooded districts and common in some localities. (*Turner*.) A common resident in the spruce zone on the Coast Range; also taken in Washington as far south as Mount Baker. (*Brooks*.)

Duncan's, Vancouver Island, by Dr. Hasell; east and west of Coast Range, B.C. (*Fannin*.) This, the only species of woodpecker detected by me in the Kowak region, was resident throughout the year. It could scarcely be called common. (*Grinnell*.) Seen near Cascade, B.C., on the 49th parallel and taken on Sophie Mountain at an altitude of 4,000 feet, July 12th, 1902. (*Spreadborough*.) Collected at Haines Mission and Glacier, Lynn Canal. In the Yukon valley at Six-mile River; three specimens near Miles Cañon; two on the Lewes River, Yukon district, and two at Circle City, Alaska. (*Bishop*.)

BREEDING NOTES.—According to Oliver Davis' "Nests and Eggs of N. A. Birds," nothing has been published regarding the nest and eggs of this species. It therefore gives me pleasure to make the following record of a set in my collection of five eggs which were taken with the parent bird on May 29th, 1897, at Peel River that runs into the mouth of the Mackenzie River. Nest, a hole in a coniferous tree about ten feet from the ground. The eggs average .90 x .65. The Rev J. O. Stringer secured the parent and found its crop filled with seeds and worms. (*W. Raine*.)

MUSEUM SPECIMENS.

Four; one taken by Mr. Spreadborough near the International boundary at Cascade, B.C.; three in Alberta, two at Banff, and one in the foothills south of Calgary, Alta., by Mr. G. F. Dippie. Mr. Dippie's Calgary specimen extends the range of this species eastward to the foothills so it is very likely that most if not all of the Rocky Mountain birds belong to this form.

401b. **Alpine Three-toed Woodpecker.**

Picoides americanus dorsalis BAIRD. 1870.

A specimen of what I consider to be this species was procured at Fort Norman on the Mackenzie River. (*Ross*.) This form is known to range from Fort Kenai and the southeastern Alaskan coast and Fort Simpson on the Mackenzie River (Lat. 62°) south to Oregon and Arizona. In well plumaged summer birds a longitudinal white band begins with the nuchal collar and extends down the back to the rump, with no trace, or at most a very slight one, of transverse barring. (*Nelson*.) This form is abundant in the interior wherever there are wooded districts. It rarely visits the vicinity of St. Michael. (*Turner*.) Mountains east of Coast

Range; north to Cassiar. (*Fannin.*) A specimen of this form was taken at Huntingdon in the Fraser River valley on the 49th parallel, on October 4th, 1901. (*Spreadborough.*) What was likely this species was observed on the shore of Shuswap Lake, above Kamloops, B.C., in June, 1889. The bird had a nest in a dead tree, and was a three-toed woodpecker with a white back. A specimen was not obtained.

MUSEUM SPECIMEN.

One taken at Huntingdon, B.C., in October, 1901, by Mr. Spreadborough.

XLVIII. **SPHYRAPICUS** BAIRD. 1858.402. **Yellow-bellied Sapsucker.**

Sphyrapicus varius (LINN.) BAIRD. 1858.

One found dead near Julianshaab, July, 1845; another sent from Greenland about 1858. (*Arct. Man.*) Common along Moose River to Moose Factory; none seen further north in Labrador in 1896. (*Spreadborough.*) Probably occurs in Newfoundland. (*Reeks.*) Fort Churchill, Hudson Bay. (*Clarke.*) Abundant summer resident in Nova Scotia. (*Downs.*) A fairly common summer resident at Wolfville, N.S. (*H. Tufts.*) A common summer resident at Sydney, Cape Breton Island, N.S. First seen May 7th; eggs far advanced by June 15th. (*C. R. Harte.*) Seen at Hunter's River, Prince Edward Island, July, 1888. Not rare at Margaree, Cape Breton Island, July, 1898. (*Macoun.*) An occasional summer resident at St. John, N.B.; breeds. (*Chamberlain.*) Rare in the Restigouche valley, N.B. (*Brittain & Cox.*) A tolerably common summer resident; breeds in York Co., N.B. (*W. H. Moore.*) Taken at Beauport, and a common summer resident in Quebec. (*Dionne.*) Summer resident at Montreal. More plentiful during the spring migrations. Breeds sparsely on the island of Montreal. (*Wintle.*)

Common summer resident at Ottawa, Ont.; breeds. Commoner in migrations than at other times. (*Ottawa Naturalist*, Vol. V.) A common breeding species, perhaps the commonest of the woodpeckers in the summer in the Muskoka and Parry Sound districts. (*J. H. Fleming.*) A summer resident about London, but not common except in migrations. (*W. E. Saunders.*)

Abundant in Algonquin Park, Ont., breeding in holes in cedar trees about 12 feet from the ground. (*Macoun.*)

A common summer resident of the wooded section of Manitoba. (*Thompson-Seton.*) During the spring of 1892 only four specimens of this bird were seen at Indian Head, Assa.; two specimens seen at Medicine Hat, Assa., May, 1894. None seen further west on the prairie. First saw four, May 3rd at Edmonton, Alta.; common the next day. Common summer resident from Edmonton Lat. $53^{\circ} 30'$ to Crow's Nest Pass Lat. 50° . (*Spreadborough.*) Common from Athabasca Landing, where it is very abundant and frequently met with up the Athabasca River to the mouth of Lesser Slave River. Common on the Clearwater River, Lat. $56^{\circ} 30'$, and on Methye Portage. Common between Methye Lake and Isle à la Crosse. (*J. M. Macoun.*) This is the only woodpecker that visits the Northwest Territories in flocks. It made its first appearance in 1827, on the plains of the Saskatchewan on the 14th May in considerable flocks. In the breeding season it is much more retiring and ranges as far north as Lat. 61° . (*Richardson.*) North to Fort Simpson on the Mackenzie River; common. (*Ross.*)

BREEDING NOTES.—I notice that this bird is very common in spring along the St. Lawrence. It breeds plentifully in the counties of Leeds, Lanark and Renfrew, in all of which I have found its nests. The locality chosen varies very much; it is partial to an ash swamp, like the hairy woodpecker, but is also fond of poplar trees, commencing its nest-hole about the beginning of May. I have found fresh eggs on May 19th. They vary much in size and shape and a complete set consists of five or six. I have noticed a nest several years in succession in a poplar at the foot of Grenadier Island, St. Lawrence River, and have observed that the nest-hole is usually from 25 to 40 feet from the ground, though on one occasion I found it in a dead stub, standing in water, not more than three feet above the surface. (*Rev. C. J. Young.*) I found a nest of young birds of this species, June 21st, 1887, on St. Bruno mountain, in a hole drilled in a live oak tree, only about six feet high in the trunk of the tree above the ground, and another nest of its young, July 1, 1885, at Calumet, Que., 58 miles west of Montreal. This nest was in a small hole drilled in the trunk of a live elm tree, and about thirty feet high from the base. (*Wintle.*)

On June 20th, 1883, at the spruce bush, I found the nest of a sapsucker. It was in a new hole in a green poplar tree, about 30 feet from the ground. It contained five newly hatched young, and in the chamber with them were some of the shells, out of which I reconstructed two eggs. The male, length $8\frac{3}{4}$, stomach full of ants, the female, length $8\frac{3}{4}$, stomach full of ants, her bill also was full of black ants, intended probably as food for the young ones; excessively fat; no red feathers at all except three or four scattered on the front of the crown, which was black. The eggs were each $\frac{1}{2}$ by $\frac{3}{8}$ and pure white. On July 3rd, in spruce bush, found the nest of a sapsucker. It was about 20 feet from the ground in a poplar, and facing the southeast. Just over the hole was a large limb, which would doubtless be of some service as a shelter from the rain. I shot the female; her crown was black, with but a very few red feathers in the front, and some of these were tipped with yellow. The gizzard was full of wood ants, *Formica rufa*. (Thompson-Seton.) Excavates its nest-hole usually in living trees; one that I took was in an ironwood and there were nesting-holes of two or three previous years in the same tree which had died the previous year. (W. E. Saunders.) I collected a set of five eggs from a hole in a poplar about twelve feet from the ground, at Long Lake, Manitoba, June 16th, 1894. (W. Raine.) Always nests in a hole in a tree at Ottawa. Nest made of chips and dust. Eggs, four to six, pure white. (G. R. White.)

MUSEUM SPECIMENS.

Seven; one purchased with the Holman collection in 1885; two taken at Ottawa and one at Belleville, Ont., by Prof. Macoun; one taken at Wallaceburgh, Ont., by Mr. W. E. Saunders; one at Indian Head, Assa., and another at Medicine Hat, Assa., by Mr. Spreadborough.

402a. **Red-naped Sapsucker.**

Sphyrapicus varius nuchalis BAIRD. 1858.

Osoyoos and valley of the Columbia. (Lord.) Found common everywhere in the interior; breeds. (Streater.) I found this bird very common east of the Coast Range, especially along the Cariboo road. (Fannin.) Generally distributed and breeding throughout the interior of British Columbia; did not observe it on the coast. (Rhoads.) In the summer of 1891 this species was

taken at Banff, and in the preceding year it was found breeding in numbers in the Columbia valley, B.C., at Revelstoke, Deer Park and Robson. In the spring of 1902 it was seen at Trail near the 49th parallel. In June 1889 it was quite common at Kamloops, B.C., and a few were seen as far west as Spence's Bridge. (*Spreadborough.*)

MUSEUM SPECIMENS.

Eight; one taken at Banff, Alta., one at Deer Park, one at Robson, three at Kamloops, B.C., and two at Victoria, Vancouver Island; all collected by Mr. Spreadborough.

403a. **Red-breasted Sapsucker.**

Sphyrapicus ruber notkensis (SUCKOW.) RICHMOND. 1902.

Known as an Alaskan bird only from the record of Hartland of two males taken at Chilcat River, April 12th. (*Nelson.*) Took an adult male at Skagway, Alaska, May 31st, 1899. (*Bishop.*) Vancouver Island and Sumas. (*Lord.*) Ten specimens of this form were taken on Queen Charlotte Islands, where it is common. (*Osgood.*) Found only on the coast; rare. (*Streator.*) East and west of Coast Range; not common. (*Fannin.*) Tolerably common summer resident at Chilliwack. (*Brooks.*) Not uncommon at Hastings and Agassiz, B.C., in 1889; rather common from McGuire's to the head of Chilliwack Lake, B.C., in 1901. (*Spreadborough.*)

404. **Williamson's Sapsucker.**

Sphyrapicus thyroideus (CASS.) BAIRD. 1858.

Taken at Similkameen, B.C., by R. V. Griffin, June, 1882. (*Fannin.*)

XLIX. **CEOPHLEUS** CABANIS. 1862.405a. **Northern Pileated Woodpecker.**

Ceophlæus pileatus abieticola BANGS. 1898.

Rather rare in Newfoundland. (*Reeks.*) Tolerably common along Moose River to Moose Factory, James Bay; none seen in Labrador farther north in 1896. (*Spreadborough.*)

An uncommon resident in heavily timbered districts in Nova Scotia. (*Downs.*) One was taken at Wolfville, N.S., Sept., 1897; rarely seen. (*H. Tufts.*) Common in the interior of New Brunswick throughout the year. (*Chamberlain.*) A not uncommon perman-

ent resident, and breeds in York Co., N.B. (*W. H. Moore.*) Said to have been formerly common on Prince Edward Island, but I saw none. Mr. Earle showed me a stuffed specimen. (*Dwight.*) Taken at Beauport; a resident in Quebec. (*Dionne.*) Accidental visitant at Montreal, but rare. The nearest place to Montreal where I have seen this large woodpecker was at Casselman, Ont., about 90 miles west of the city. (*Windle.*)

This species is not uncommon in the hills north of Ottawa, and is known to breed. (*Ottawa Naturalist*, Vol. V.) Muskoka and Parry Sound districts seem to be the home of this species. The work done by the pileated woodpecker in cutting into dead trees is wonderful. A pair will work all winter at one tree cutting it to pieces. I have several times seen stubs that have been so cut up that they have broken down. The birds cut deep holes in the sides of the trees to get entrance into the soft centre when the cuts are continued and lengthened until little of its inside remains. (*J. H. Fleming.*) Found quite numerous at Whitney on the Parry Sound Railway late in the fall of 1898. (*J. Hughes-Samuel.*) Not common in Algonquin Park in summer; more plentiful in winter. (*Spreadborough.*) A rare resident in the neighbourhood of London. (*W. E. Saunders.*)

Rare resident in heavy timber, but becomes more abundant to the northward. According to Hutchins it has been taken in January at Gloucester House in Lat. $50^{\circ} 31' N.$, Long. $96^{\circ} 03' W.$ 387 miles up the Albany River. (*Thompson-Seton.*) This great woodpecker is a resident all the year in the interior of the Northwest Territories, up to Lat. 62° or 63° , rarely appearing near Hudson Bay, but frequenting the gloomiest recesses of the forests that skirt the Rocky Mountains. (*Richardson.*) North to Fort Liard, Lat. 61° ; rare. (*Ross.*) Rare on the Clearwater River, Atha., Lat., $56^{\circ} 40'$. (*J. M. Macoun.*) Common east and west of the Coast Range. (*Lord.*) Common in the coast region where it breeds; they are not very common on Vancouver Island. (*Streator.*) Common; but more abundant on the coast. (*Fannin.*) Common resident at Chilliwack, B.C.; tolerably common around Lake Okanagan, B.C., in winter; scarce in the Cariboo district, B.C. (*Brooks.*) A few were noted at Banff in 1891; seen at Revelstoke in April, 1890; at Deer Park, Lower Arrow Lake, June 14th, 1890, and at Robson on the Columbia River, at an altitude of 4,200 feet, June 26th, 1890; and quite common between Trail and Cascade, on the 49th parallel, in 1902; observed everywhere in

the Chilliwack valley, B.C., and on the mountains in 1901; common on Vancouver Island and resident wherever I have been. (*Spreadborough.*) Found in comparative abundance everywhere in British Columbia. (*Rhoads.*)

BREEDING NOTES.—This bird is becoming quite rare. I have seen it in the counties of Frontenac, Lanark and Renfrew, Ont.; never during the past fifteen years in the county of Leeds or along the St. Lawrence. In the heavily-timbered and rough sections of the former counties, as recently as ten years ago it was comparatively common, now (1901) it is seldom seen. It breeds early, commencing its nest-hole in April. In 1888 I saw a nest in a large basswood tree between Perth and Lanark, Ont., about 30 feet from the ground. I have also seen the nest in a maple near Bob's Lake, Frontenac Co., this is about its southern breeding limit in Ontario at the present time. (*Rev. C. J. Young.*) I have a set of six eggs that were collected at Lake Joseph, Muskoka, Ont., on June 2nd, 1899. Eggs laid in a hole in a decayed pine 20 feet from the base. (*W. Raine.*)

MUSEUM SPECIMENS.

Nine; one bought with the Holman collection in 1885; one taken north of Ottawa by Mr. Herring; one taken in the township of Low, Gatineau district, Que., by Mr. Marler; one taken by Mr. G. R. White near Ottawa in 1892; one obtained from Mr. Henry at Ottawa in 1895; one taken at Bracebridge, Ont., one at Burrard Inlet, B.C., one at Chilliwack, B.C., and one at Agassiz, B.C., all by Mr. Spreadborough.

CL. **MELANERPES** SWAINSON. 1831.406. **Red-headed Woodpecker.**

Melanerpes erythrocephalus (LINN.) SWAINSON. 1831.

Very rare in Nova Scotia. A mere straggler. (*Downs.*) Occasionally met with in New Brunswick. (*Chamberlain.*) Occasionally met with in Quebec. (*Dionne.*) Summer resident; scarce. Observed on the Island of Montreal May 24th, 1882, and June 24th, 1883. (*Wintle.*)

A rather scarce summer resident at Ottawa. (*Ottawa Naturalist*, Vol. V.) One of the species that is increasing with the settlement of the Muskoka and Parry Sound districts. Mr. Kay speaks

of it as rare at Port Sydney in 1890, but increasing rapidly; in 1893 it was rare at Emsdale, but has become much commoner. (*J. H. Fleming.*) Fairly common in all the western peninsula of Ontario. Abundant in many parts, but not so much so near London as formerly, the decrease beginning about 1878. It spends the winter here in considerable numbers if food conditions are favourable. (*W. E. Saunders.*)

A rare summer resident in Manitoba, but commoner eastward. (*Thompson-Seton.*) In May, 1895, this species was seen at Old Wives' Creek, in eastern Assiniboia; also at Wood Mountain Post, and observed breeding at "Stone Pile" on the White Mud River, Assa., in June, 1895; a pair were found breeding on the east end of the Cypress Hills in June, 1894; the same year one was seen at Crane Lake and another at Medicine Hat, Assa.; a pair seen at Pass Creek, near Robson, Columbia River, B.C., June 25th, 1890. (*Macoun.*)

BREEDING NOTES.—A common summer resident in Ontario. Very plentiful along the St. Lawrence, on Wolfe Island and elsewhere, becoming rarer northward in the county of Renfrew. It occasionally stays all winter. In the mild winter of 1890 I saw two several times in a sugar bush of large maples in the township of Escott, Leeds Co., Ont. Also at the same sugar bush I noticed one in December, 1899. It is a late breeder, seldom having eggs before June, and making its nest-hole high up in the dead limb of a large tree. I have only once or twice seen the nest within ten feet of the ground. (*Rev. C. J. Young.*) Nest taken in woods near Ottawa. It was a hole in a tree and contained four pure white eggs laid on a bed of chips and dust. (*G. R. White.*) At Rice Lake, Ont.; June 10th, 1902, I found this bird more plentiful than the common flicker, nesting in decayed tree stubs. (*W. Raine.*) Mr. G. A. Dunlop found a nest with eggs of this species at Lachine, and I came across it breeding in a hole of a dead tree along a fence, between two woods at Longue Pointe, May 24th, 1889. I shot the female bird at the time for a specimen. I have not met with this conspicuously coloured woodpecker in the autumn season, and therefore I infer it departs south as soon as its young are reared and able to migrate. (*Wentle.*) Is perhaps the latest of our woodpeckers to breed, seldom laying before June. It lays five to seven eggs of very variable size and shape, at varying heights from the ground, ranging from two to at least sixty feet. (*W. E. Saunders.*)

MUSEUM SPECIMENS.

Four; two taken at Ottawa by Mr. Herring; one purchased with the Holman collection in 1885; and one taken at Medicine Hat, Assa., May 24th, 1894, by Mr. Spreadborough.

One set of six eggs taken near Port Durham, Ont., in 1892.

408. **Lewis's Woodpecker.**

Melanerpes torquatus (WILS.) BONAP. 1838.

Shot only in the open timbered lands in British Columbia east of the Coast Range. (*Lord.*) Abundant in the interior; breeds. (*Streater.*) East and west of the Coast Range; rare on Vancouver Island; young taken at Victoria and Comox. (*Fannin.*) A tolerably common summer resident at Chilliwack, B.C. (*Brooks.*) While we were encamped on one of the head waters of the South Saskatchewan at the eastern base of the Rocky Mountains a Lewis's woodpecker flew overhead and was distinctly recognized by myself and Mr. Batty. (*Coues.*) One specimen seen at Canmore, east of Banff, in June, 1901; one specimen shot at Revelstoke, B.C., May 5th, 1890; only three specimens seen during the month; rather common at Sicamous, Kamloops and Spence's Bridge in 1889; one taken at Huck's, Chilliwack River, B.C., July, 1901; abundant at Cascade, on the International Boundary, B.C., in the summer of 1902. (*Spreadborough.*) Only east of Coast Range in B.C.; rare in some localities, in others abundant. (*Rhoads.*)

MUSEUM SPECIMENS.

Nine; one taken at Kamloops, two at Spence's Bridge, one at Enderby, one at Chilliwack, and four at Cascade on the International Boundary, B.C. All by Mr. Spreadborough.

409. **Red-bellied Woodpecker.**

Melanerpes carolinus (LINN.) RIDGW. 1874.

Not common near London but locally abundant in the western part of the peninsula of Ontario. (*W. E. Saunders.*) Rare about Toronto; commoner in southwester Ontario. (*J. H. Fleming.*) A female was taken in Toronto, Ont., May 19th, 1885. (*Thompson-Seton.*) On July 27th, 1894, I took an immature specimen of this species at Twin Lakes, border of Lake township, northeast of

Havelock. (*J. Hughes-Samuel.*) Accidental visitant in the Montreal district; rare. Mr. Kuetzing says this species occurs in the Eastern Townships, but I have not observed it near Montreal but will treat it as a straggler until more is known of it in this district. (*Wintle.*)

MUSEUM SPECIMEN.

One specimen, purchased with the Holman collection in 1885.

CLI. **COLAPTÈS** SWAINSON. 1827.412a. **Northern Flicker.**

Colaptes auratus luteus BANGS. 1898.

Herr Möschler has recorded the receipt of a specimen from Greenland in 1852. (*Arct. Man.*) An accidental straggler was procured from the mainland near Akapatok Island, Hudson Strait, in October, 1882. Reported to be a common summer visitor to Northwest River, Labrador. (*Packard.*) Observed all along the Moose River to Moose Factory, and a few as far north as Fort George in Labrador, June, 1896. (*Spreadborough.*) A summer visitor and tolerably common in Newfoundland. (*Reeks.*) One seen on the Humber River Newfoundland, Oct., 1898. (*L. H. Porter.*) Fort Churchill, Hudson Bay. (*Clarke.*) Not common at Lake Mistassini, northern Quebec, in 1885. (*J. M. Macoun.*) Very common from Lake Winnipeg to Fort Churchill, Hudson Bay. (*Dr. R. Bell.*) Quite common in Nova Scotia. (*Downs.*) In woods along Rustico Bay, Prince Edward Island, July, 1888; common on Cape Breton Island, July, 1898. (*Macoun.*) An abundant summer resident in New Brunswick. (*Chamberlain.*) Common around fields, Restigouche valley, N.B. (*Brittain & Cox.*) Common summer resident and breeds in York Co., N.B. (*W. H. Moore.*) Taken at Beauport and a common resident in Quebec. (*Dionne.*) A few were seen near Gaspé and one or two at Fox Bay, Anticosti. (*Brewster.*) Common summer resident at Montreal. Breeds in Mount Royal Park. (*Wintle.*) Common summer resident at Ottawa. Breeding in all woods. (*Ottawa Naturalist*, Vol. V.) Abundant and breeding in the districts of Parry Sound and Muskoka. (*J. H. Fleming.*) Common all over western Ontario. A few spend the winter in favourable seasons. (*W. E. Saunders.*)

Not common in Algonquin Park, Ont.; one pair breeding near C  che Lake. (*Spreadborough.*) A very abundant summer resident

in the wooded parts of Manitoba. (*Thompson-Seton*.) This beautifully marked bird visits the Northwest Territories only in summer, advancing as far north as Great Slave Lake, but resorting in the greatest numbers to the plains of the Saskatchewan. Instead of hiding itself in the depths of the forest it frequents the open downs, and employs itself in turning over the ant-hills in search of larvæ on which it preys. (*Richardson*.) North to Peel River, mouth of the Mackenzie; common. (*Ross*.) This bird is by no means scarce in the valley of the Anderson but we made no attempt to collect its eggs as they are not scarce. (*Macfarlane*.) This handsome woodpecker breeds from one side of the Territory (Alaska) to the other wherever wooded country occurs, according to the Esquimaux it extends even to Behring Strait. (*Nelson*.) This species does not occur in the Yukon districts to my knowledge. A specimen was obtained from Fort Yukon, where it is not abundant. (*Turner*.) In the Yukon valley this is by far the most common woodpecker. We found it quite frequently from Log Cabin to Circle City. At Caribou Crossing, June 27th, 1899, Osgood secured a female and found her nest containing eight young and three eggs in a cavity three feet from the ground in a partly dead poplar. At Six-mile River another nest was found, and at Lake Laberge another, all in the Yukon district. (*Bishop*.)

This is not a rare bird at Indian Head, Medicine Hat, and Cypress Hills; it was found breeding in 1895 in company with the hybrid flicker in holes in *Acer Negundo* on May 30th and two fresh eggs taken from the nest; early in June it was found at Wood Mountain, and towards the end of June on Sucker Creek in the Cypress Hills, Assa.; common and breeding at Banff and shot as far west as Revelstoke, B.C., May 14, 1890. First seen at Edmonton, Alta., on April 30th, 1897; it soon became common and commenced to breed. Common in the foothills southwest of Calgary. (*Spreadborough*.) Common from Athabasca Landing up the Athabasca to Lesser Slave River and down to Fort McMurray, Lat. 56° 40'. Common up the Clearwater River and on Methye Portage. (*J. M. Macoun*.)

BREEDING NOTES.—In this region (Carberry) the flicker seems to prey principally on ants, taking them sometimes from the rotten stumps that are honeycombed with their galleries, but more often, I believe, from the mound-like ant-hills which are to be seen on the prairie in such numbers. His method of attack seems to be by first pecking a hole in the centre of the hill, and

then as the ants come swarming out he dispatches them till his appetite is satisfied. Afterwards he comes again and again to the hill till it is completely depopulated. (*Thompson-Seton.*) I found a nest of this woodpecker, June 8th, 1882, at Bedford, Que., in the trunk of an old beech tree, containing two younglings, five eggs incubated and one egg quite fresh; also another nest in the decayed trunk of a beech tree in the woods below Hochelaga, June 3, 1883, containing four eggs, and in the same tree two eggs; May 21st, 1887, another nest, with one egg, in a hole in the dead limb of a tree on the spur of Mount Royal. The flicker's nest can often be discovered by the quantity of chips strewn over the ground under the tree, from the hole they have been excavating in it. (*Wintle.*) One of these birds has nested in a telegraph post in front of my house at Kew Beach, Toronto, for the past five summers and has never yet succeeded in hatching its eggs on account of its nest being robbed by boys. As many as 40 eggs have been taken from this nest in one season; as fast as the eggs are taken the bird lays another lot and in spite of this persecution returns every spring to its old home. Higher up in the same telegraph post a pair of tree swallows nest annually and succeed in hatching out their brood as the hole is too small for the boys to get their hands into. (*W. Raine.*) Nests taken at Ottawa are in holes in stubs or broken trees. Eggs five to seven, pure white, laid on a bed of small chips and dust. (*G. R. White.*) First seen in 1892 at Indian Head, Assa., April 19th. After this they became common and were nesting by May 9th, one shot at this date had its stomach full of ants. First seen in 1894 at Medicine Hat, Assa., on April 12th. After that they became common and could scarcely be distinguished from the form I call the hybrid flicker. Both forms were breeding. Later this species was found at Crane Lake and very common in the timber at the east end of the Cypress Hills. In May, 1895, it was found breeding with the hybrid form at Old Wives' Creek and the eggs of each taken. Both nests were in holes of *Acer Negundo*. It was also found at Wood Mountain and along Frenchman's River in the Cypress Hills. Common and breeding at Banff, Rocky Mountains, in 1891. Met with at Revelstoke in 1890 in company with hybrids and the red-shafted flicker. (*Macoun.*) A very common summer visitant. Found everywhere. It is plentiful in the Magdalen Islands where its former nest-holes are sometimes occupied by the small owls that breed there. Once in the county of Renfrew I

found a nest with nine eggs, but six or seven is the usual number. (*Rev. C. J. Young.*) Abundant from April to October. Usually the flicker's nest is situated quite a distance from the ground, as one of the bird's names—"high hole"—suggests. But last summer a nest was observed so low that the bottom was on a level with the ground outside the stump in which the nest was made. The nine eggs which this nest contained were also remarkable. One egg was no larger than a sparrow's and contained no yolk, while the other eight varied greatly in shape from spherical to extremely elongate. (*H. Tufts.*)

MUSEUM SPECIMENS.

Twelve; three taken at Ottawa, one at Belleville, Ont., by Prof. Macoun; one taken at Indian Head, Assa., one at Old Wives' Creek, Assa., one at Medicine Hat, Assa., one at Edmonton, Alta., three at Banff, Rocky Mountains, and one at Revelstoke, B.C., all by Mr. Spreadborough.

One set of 14 eggs taken at Hurdman's bridge, near Ottawa. Nest in a hole in a tree where the bird had nested for years. Another set of two taken at Old Wives' Creek, Assa., May 30th, 1895. Nest in a hole in *Accr Negundo*.

413. **Red-shafted Flicker.**

Colaptes cafer collaris (VIGORS) NELSON. 1900.

A specimen of this species was killed to the westward of the Rocky Mountains by Mr. Douglas. (*Richardson.*) During Bischoff's visit to Sitka a number of these birds were taken there and the specimens are now in the National Museum. It has not been taken since. (*Nelson.*) The most abundant of the summer visitors on Vancouver Island and in British Columbia. (*Lord.*) Five specimens taken at Ashcroft are of this form. (*Streator.*) East of the Coast Range; common. (*Fannin.*)

This species was common at Banff in the spring of 1891; breeding at Devil's Lake and seen eating ants above the timber line on Mount Aylmer, Aug. 6th, 1891; common at Revelstoke on the Columbia, and down that river to Deer Park and Robson; also common and breeding in Eagle Pass, west of Revelstoke, B.C.; common on the International Boundary between Trail and Cascade, B.C., in the summer of 1902. Not uncommon at Sicomus, Kamloops and Spence's Bridge, B.C., in May and June, 1889. (*Spreadborough.*)

MUSEUM SPECIMENS.

Seven; two taken at Revelstoke; two on the International Boundary, B.C.; one taken at Banff, Rocky Mountains; one taken at Sicamous, B.C., and one taken at Kamloops, B.C.; all by Mr. Spreadborough.

In the summer of 1902 Mr. Spreadborough took four sets of eggs on the International Boundary, two of which contained seven eggs and two, six each.

413a. **Northwestern Flicker.**

Colaptes cafer saturation (RIDGW.) A. O. U. CHECK-LIST, 1886.

Abundant on the coast of British Columbia. (*Streator.*) Abundant west of Coast Range; a number winter in the neighbourhood of Victoria. (*Fannin.*) A common resident at Chilliwack. (*Brooks.*) Common at Chilliwack and at Huntington, B.C. Observed a few on the mountains at Chilliwack Lake, also a few along the Chilliwack River and in the hills, and at Burrard Inlet; a resident throughout Vancouver Island. Nests in holes in dead trees; nesting commenced April 24th, 1893. (*Spreadborough.*) Noted occasionally about Sitka, Alaska, in the dense forest a mile or more back from the beach. (*Grinnell.*) While *cafer* seems to be exclusively an eastern species, *saturation* cannot be said to confine itself to the coast; examples from local areas of great rainfall in the interior being indistinguishable from ordinary Vancouver Island specimens. (*Rhoads.*)

MUSEUM SPECIMENS.

Eleven specimens; four taken at Chilliwack; three at Agassiz; two at Burrard Inlet, B.C., and two at Victoria, Vancouver Island; all by Mr. Spreadborough.

One set of four eggs taken near Victoria, Vancouver Island, by Rev. G. W. Taylor.

Hybrid Flicker.

All the *Colaptes* of the Upper Missouri, Yellowstone and Milk River appears to be of the hybrid race in which there is every degree of departure from the characters of typical *auratus*. The change begins on the Middle Missouri, as low down, I think as Fort Randall, and certainly as low as old Fort Pierre. It is a point of

interest that this mongrel style overruns into the Saskatchewan region; for of two species secured at the eastern base of the mountains, one had the red quills and ash throat of *mexicanus*, and the cheek-patch mixed with red, while the other was nearly pure *auratus*. (Coues.)

This form was found breeding in the same locality and under the same conditions with pure *auratus*, in holes in *Acer Negundo* on Walsh's ranch, near the mouth of Old Wives' Creek, May 30th, 1895. The nest contained four eggs indistinguishable from those of the eastern species. Others were seen at Medicine Hat, Assa., in 1894 and a number shot. Specimens were taken at Sucker Creek, west end of Cypress Hills, July 1st, 1895; later in the season it was seen at Castellated Rocks in southwestern Assiniboia, in the Milk River valley; on July 26th others were seen at Lee's Creek, near Cardston, Alta.; and still later at Waterton Lake, almost where Dr. Coues saw the species in 1874.

Numerous specimens were taken at Revelstoke, B.C., in the spring of 1890. These varied from almost pure *auratus* to pure *cafer*. Two specimens were shot having all the characters of *cafer*, but each had a crescentic patch of red on the nape of the neck.

MUSEUM SPECIMENS.

Ten specimens; three taken at Medicine Hat, Assa.; one at Old Wives' Creek, Assa., six at Revelstoke, B.C., in 1890; all by Mr. Spreadborough.

One set of four eggs taken at Old Wives' Creek, Assa., May 30th, 1895, by Mr. Spreadborough.

ORDER MACROCHIRES. GOATSUCKERS,
SWIFTS, &c.

FAMILY XXXV. **CAPRIMULGIDÆ**. GOATSUCKERS.

CLII. **ANTROSTOMUS** GOULD. 1838.

417. **Whip-poor-will.**

Antrostomus vociferus (WILS.) BONAP. 1838.

Formerly common but now becoming rare in Nova Scotia. (Downs.) An occasional summer resident at St. John, N.B.

(*Chamberlain.*) Not common at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Rare summer visitor in Quebec. (*Dionne.*) Transient visitor at Montreal, scarce; this bird is said to be plentiful at St. Jerome, 33 miles north of Montreal. (*Wintle.*)

A common summer resident at Ottawa. (*Ottawa Naturalist*, Vol. V.) Fairly common in Muskoka; I have not met with it in Parry Sound district. (*J. H. Fleming.*) Common from the Georgian Bay to Lake Erie in most retired localities. (*W. E. Saunders.*) North to Norway House, foot of Lake Winnipeg. (*Dr. R. Bell.*) A common summer resident in Manitoba, arriving early in May. (*Thompson-Seton.*) Very common in thick woods at Manitoba House, Manitoba Lake, and westward along Lake Winnipegosis, nesting in the poplar woods in June, 1881. During the day many specimens were seen lying at full length, and perfectly flat, lengthwise on the branches. (*Macoun.*) Not seen nor heard anywhere on the prairie. (*Spreadborough.*)

BREEDING NOTES.—Common in central Ontario in rocky uneven ground, partially wooded. I noticed it in a plantation of small oaks near the canal, Wolfe Island, opposite Kingston, but it is not common in level sections of the country. It arrives earlier in the spring than the night hawk, and I have heard its "call" as early as the end of April, and as late as September. It is nowhere commoner than among the Thousand Islands. On some of the larger of these it breeds, returning to the same vicinity year after year. On one island, among ferns, and second growth trees I came across the eggs three times. They are laid in pairs on the bare ground without a vestige of nest, generally among the trees. I have found them on the 9th and 16th of June, but two years ago I saw two eggs that were said to have been found on the 8th May. This bird leaves Ontario nearly a month later than the nighthawk, at least many do. (*Rev. C. J. Young.*)

Fifteen years ago this bird could be heard any evening on the outskirts of Toronto, but of late years it has become scarce. I found a set of two beautiful eggs of this species at Rosedale, Toronto, May 24th, 1889. There was no nest and the eggs were laid on dead leaves on the ground in a wood. On the evening of June 18th, 1894, Mr. Menzies drove me from Woodlands, Manitoba, to Shoal Lake, and we were astonished at the number of whip-poor-wills calling in the woods at the sides of the trail. (*W. Raine.*)

MUSEUM SPECIMENS.

Two; taken at Toronto, Ont., by Mr. Herring.

One set of two eggs taken at Garden Hill, ten miles north of Port Hope, Ont., by Mr. W. H. Meeking, June 10th, 1898. No nest, the eggs just laid on the ground where the fire had burned; all the woods the year before.

CLIII. *PHALÆNOPTILUS* RIDGWAY. 1880.418. **Poor-will.**

Phalænoptilus nuttallii (AUD.) RIDGW. 1880.

Only one pair of these birds was seen in two weeks stay at Kamloops, B.C., in June, 1889. One was shot in open day but no nest was discovered. The country was open, dry and arid. (*Spreadborough.*) From Kamloops south through the Okanagan district of British Columbia. (*Fannin.*) A tolerably common summer resident throughout the southern portions of the semi-arid interior. (*Brooks.*)

MUSEUM SPECIMEN.

One specimen; taken at Kamloops, B.C., June 18th, 1889, by Mr. Spreadborough.

CLIV. *CHORDEILES* SWAINSON. 1831.420. **Nighthawk.**

Chordeiles virginianus (GMEL.) SWAINS. 1831.

One specimen found dead on Melville Island. (*Arct. M n.*) Stearns records this bird from Natashquan; also obtained by Drexler in August, 1860, at Moose Factory, James Bay. (*Packard.*) A summer migrant in Newfoundland. (*Reeks.*) Very common in Nova Scotia. (*Downs.*) Seen at Baddeck and Sydney, Cape Breton Island, August, 1898; one seen in the marsh at Brackley Point, Prince Edward Island, 25th June, 1888. (*Macoun.*) A few were seen almost every day frequenting the open clearings or sailing high in the air while I was on Prince Edward Island. (*Dwight.*) An abundant summer resident at St. John, N.B. (*Chamberlain.*) A common summer resident; breeds at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Not common in the Restigouche valley, N.B.; only seen in burnt districts near settlements. (*Brittain & Cox.*) Taken at Beauport; a common summer

resident in Quebec. (*Dionne*.) Not rare; breeds at Lake Mistassini, northern Quebec. (*J. M. Macoun*.) A single specimen observed at Fort Churchill, Hudson Bay. (*Clarke*.) York Factory, Hudson Bay. (*Dr. R. Bell*.) One heard, June 27th, at Grand Entry Island, one of the Magdalen Islands; but none afterwards. (*Brewster*.) Common summer resident, breeds in Montreal upon the gravelled roofs of houses. (*Wintle*.) An abundant summer resident. Since the building of houses with gravelled roofs these birds have become very common in the city. They breed in security on many of the flat roofs. (*Ottawa Naturalist*, Vol. V.) Common summer resident in Muskoka and Parry Sound districts. (*J. H. Fleming*.) Not so common as formerly in the London, Ont., district. (*W. E. Saunders*.) Two observed in Algonquin Park, June 18th. No others seen in three month's residence. (*Spreadborough*.) This species is quite common in Manitoba and breeds freely. (*Thompson-Seton*.) Exceedingly abundant on pleasant evenings near our camp at Grand Rapids, Saskatchewan River. (*Autting*.) Few birds are better known in the Northwest Territories than this, which ranges in summer to the Arctic islands. It makes its appearance at Great Bear Lake generally about the last of May, and was observed hatching on the Saskatchewan on the 8th June. (*Richardson*.) North to Lapierre's House on the Mackenzie River; rather rare. (*Ross*.) A few straggling birds have been observed in the far north but I never came across its nest except on the Clearwater River near Fort McMurray in June, 1873. (*Macfarlane*.) Seen along the Athabasca River from the mouth of Lesser Slave River to the Clearwater River, Lat. $56^{\circ} 40'$, also on Methye Portage and from Methye Lake to Isle à la Crosse. (*J. M. Macoun*.) Vancouver Island and throughout British Columbia. (*Lord*.) Abundant summer resident in the interior; breeds. (*Streptopelia*.) East of Coast Range; a summer resident. (*Fannin*.) Summer resident at Chilliwack; tolerably common. All the specimens taken belong to the typical form and not to *henryi*. (*Brooks*.) Abundant in all interior localities of British Columbia. (*Rhoads*.) From Caribou Crossing, Lat. 60° , B.C., to Tatchun River, Lat. $62^{\circ} 20'$, near Rink Rapids, Yukon River. The specimens were slightly darker than *virginianus* from the east. (*Bishop*.)

BREEDING NOTES.—A common summer resident, though it does not appear to be as common as it was fifteen years ago. It lays its two eggs, without any nest, on rocks, in a disused stone quarry,

or even on land that has recently been burnt over. (*Rev. C. J. Young.*) All the nests taken at Ottawa, Ont., were on the ground or on the gravel on the flat roofs of houses in the city. Eggs, two, of a pale olive buff, thickly mottled and daubed with varied tints of darker gray slate or even blackish. (*G. R. White.*) On August 1st, 1883, while in the eastern sand hills with Miller Christy, we found the two young of a nighthawk sitting on the bare ground in the open. They seemed about three days old. On the tips of their beaks were still the hard white with which they are furnished to aid them in chipping the shell. The old shells were lying around the nest, as is the case with the *Poocates*, and but for these I should have passed by the young ones, as they had squatted close to the ground and shut their eyes, for the blackness and brilliancy of these would almost certainly have betrayed them. I gently touched one of them, whereupon it crouched down more closely to the ground; but its companion, rising up, hissed with open beak and snapped savagely at my fingers. On being further teased they ran off, exactly in the manner of young ducks, with outstretched wings and with neck and body at an angle of 45 degrees. After running a few feet they stopped, squatted as before, and closed their eyes. This they repeated several times, but at best they only made little progress, and each time on being overtaken the bold one was always ready to fight. This proved to be a male; the sex of the other was not ascertained, but probably it was a female. At this age the middle claw is not pectinated. (*Thompson-Seton.*) The eggs of the nighthawk (*Chordeiles virginianus*) were several times found on the bare ground among the sand hills, on the north side of the Souris, near Plum Creek, with no approach to a nest for the helpless young. The parent birds endeavoured to draw us away from their eggs, fluttered as if wounded a short distance from them, and uttering cries of distress. (*Hind.*)

MUSEUM SPECIMENS.

Two; both taken at Ottawa, Ont., by Mr. G. R. White.

One set of two eggs taken from roof of house, 374 Gilmour st., Ottawa, Ont., June 12th, 1895, by Mr. R. H. H. Hunter. Another set of two taken on bare rock in the township of Metheun, Peterboro' Co., Ont., by Mr. J. Keele, June 3rd, 1899.

420a. **Western Nighthawk.***Chordeiles virginianus henryi* (CASS.) COUES. 1872.

On June 7th, 1892, two were observed at Indian Head, Assa., and by the 10th they were common. I have seen them sitting on poplar trees by the shore of Deep Lake, ten miles from Indian Head, in the day time. Very abundant all summer; breeds in the vicinity. First seen in 1894 at Medicine Hat, June 3rd; also at Wood Mountain, June 10th, 1895; afterwards it was common and in large numbers at Frenchman's River and Cypress Hills, near Cypress Lake; it is a common species in the prairie region and was seen along Milk River, St. Mary's River and Lee's Creek, at Cardston, Alta. This form was abundant on the International Boundary, between Trail and Cascade, B.C., in the summer of 1902. Rather rare and breeding at Banff, Rocky Mountains; heard occasionally at Deer Park, Lower Arrow Lake, B.C., in June, 1890. Breeding in numbers on the rocks 700 feet above the Columbia at Robson, B.C., and west of Pass Creek. Breeding on bare rocks without any sign of a nest. Eggs two. The bird often flies in the daytime. All specimens observed in the mountains are referred here. Common at Sicamous, Kamloops and Spence's Bridge. Observed at Chilliwack, B.C., and up the river as far as Huck's; a summer resident on Vancouver Island; one seen on June 11th at Victoria, and first seen at Comox, June 15th; on August 18th, 1893, saw a flock of at least 200 at Sooke; they appeared to be going southward. (*Spreadborough.*) I have found this bird nesting throughout Assiniboia and Alberta, laying its two eggs on the ground in the poplar bluffs. (*W. Raine.*) A summer resident in British Columbia; breeds on the mainland and Vancouver Island. (*Fannin.*)

MUSEUM SPECIMENS.

Nine; one taken at Indian Head, Assa.; one at Robson, Columbia River, B.C.; one at Banff, Rocky Mountains; four at Trail, B.C., and two at Kamloops, B.C.; all by Mr. Spreadborough. One set of eggs taken at Robson, Columbia River, B.C., June 22nd, 1890, by Prof. Macoun. Another set of two taken at Atlin Lake, B.C., June 25th, 1900, by W. H. Boyd.

420c. **Sennett's Nighthawk.***Chordeiles virginianus sennetti* (COUES.) BISHOP. 1896.

Treeless region of the Great Plains from the Saskatchewan southward to Texas. (*Sup. VIII. to the A. O. U. Check-list.*)

Our specimens have not been taken on the treeless plains and though some of the references under *C. virginianus* may refer to this form we have no specimens of it.

FAMILY XXXVI. **MICROPODIDÆ.** SWIFTS.

CLV. **CYPSELOIDES** STREUBEL. 1848.

422. **Black Swift.**

Cypseloides niger borealis (KENNERLY) DREW. 1885.

Sumas, British Columbia. (*Lord.*) A migrant in British Columbia. (*Fannin.*) Abundant summer resident. (*Brooks.*) Observed a number at Chilliwack, B.C., June 2nd, 1902; seen at Agassiz, B.C., May 19th, 1889; first seen at Comox, Vancouver Island, June 15th, 1893, also at Nanaimo; only seen for a few days during migration. (*Spreadborough.*)

First seen at Lulu Island May 25th, and more seen on the 26th, migrating leisurely. Frequently seen in great flocks on the Thompson and over the lakes near Ashcroft. On the 7th of June, my notes report "2,000 hovering low about a small lake," the only chance I had to secure specimens. They remained there all that day, but were gone the next day. Occasional flocks appeared at Clinton, Lac la Hache, Ashcroft and Kamloops until June 12th. They were again seen at Vernon June 22nd. At no time did they appear singly or in detached pairs. (*Rhoads.*)

CLVI. **CHÆTURA** STEPHENS. 1825.

423. **Chimney Swift.**

Chætura pelagica (LINN.) STEPH. 1825.

One shot in 1863 near Sukkertop, Greenland. (*Arct Man.*) Apparently rare in Newfoundland, at least at Cow Head. (*Reeks.*) An abundant summer resident in Nova Scotia. (*Downs.*) Baddeck and Margaree, Cape Breton Island, July, 1898. Seen near Brackley Point, Prince Edward Island; not common June 23rd, 1888. (*Macoun.*) Rather rare and not often seen in Prince Edward Island. It usually nests in hollow trees. Not rare at Baddeck, Cape Breton Island. (*Dwight.*) A common summer resident in New Brunswick. (*Chamberlain.*) A common summer resident and breeds at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Common in the Restigouche valley, N.B.; nest-

ing on trees. (*Brittain & Cox.*) Common summer resident in Quebec. (*Dionne.*) Numerous about Grenville and throughout the valley of the Rouge, Argenteuil Co., Que., 1856. (*D'Urban.*) Summer resident at Montreal; abundant; breeds in the city, attaching their nests against the inside walls of chimneys. (*Wintle.*)

An abundant summer resident, breeding in immense numbers in the great chimneys of the Parliament buildings. Early in May they begin to arrive and by the end of the month they congregate in thousands and late in the evening begin to descend in a constant spiral stream in a large chimney in the western block. In the first week in February, 1883, a chimney swift came down a chimney in the house of Dr. J. F. Whiteaves, Assistant Director of the Geological Survey. It was caught and examined by him and remained alive for several days. A similar instance is known to have occurred in Toronto. (*Ottawa Naturalist*, Vol. V.) Abundant in Muskoka and Parry Sound districts. (*J. H. Fleming.*) A common summer resident throughout western Ontario. (*W. E. Saunders.*) Common in Algonquin Park, Ont. Some nesting in a chimney at Cache Lake and others in hollow trees. (*Spreadborough.*) Nesting on the inside wall of an outbuilding near the railway station at Aylmer, Ont. (*A. G. Kingston.*)

A tolerably common summer resident in Manitoba, but diminishing westward. (*Thompson-Seton.*) Common at Pembina, Lat. 49°, and traced thence westward only to the Mouse (Souris) River. (*Coates.*) A few seen at Indian Head, Assa., in June, 1892. Two individuals seen at Edmonton, Alta., May 17th, 1897. (*Spreadborough.*)

Vol. V. of *The Ottawa Naturalist*, pp. 89-104, contains a very complete description of the Ottawa colony of chimney swifts by Mr. A. G. Kingston. The whole article should be read by those interested in this bird.

BREEDING NOTES.—Very common in summer, a few birds remaining until the end of September. It usually arrives from the 3rd to the 6th May. Its curious nest of sticks, glued together, is well known. This is often placed in a disused chimney against the woodwork of an empty house, and such like positions. (*Rev. C. J. Young.*) Nest composed of small twigs of nearly uniform size, which are interwoven into a neat semi-circular basket. Each

twig is firmly fastened to its fellow by saliva secreted by the bird. Eggs five, pure white. (*G. R. White.*) The nest of this species is occasionally found against the inner walls of outhouses and more rarely in hollow trees in the woods, its former nesting place. (*W. E. Saunders.*)

MUSEUM SPECIMENS.

Three; two taken at Ottawa by Mr. Herring, and one purchased with the Holman collection in 1885.

One set of four eggs taken near Scarborough, Ont., June 20th, 1898. The nest was in an old disused chimney. Nest taken by Mr. W. Raine.

424. **Vaux's Swift.**

Chaetura vauxii (TOWNS.) DEKAY. 1844.

Only seen at Sumas, British Columbia. (*Lord.*) East and west of the Coast Range, but not to my knowledge occurring on Vancouver Island. (*Fannin.*) Summer resident at Chilliwack; common. (*Brooks.*) Seen above the station at Revelstoke, B.C., May 12th, 1890. Rather common towards the end of May; common at Deer Park, Lower Arrow Lake, and at Pass Creek, near Robson, Columbia River. Seen at Kamloops and Sicamous and on Mount Queest, Gold Range, B.C., at an altitude of 6,000 feet. Always flying very high; common at Trail, near the International Boundary, for a few days in the spring of 1902; common at Chilliwack and along that river to Chilliwack Lake, B.C., June, 1901; seen for the first at Comox, Vancouver Island, June 16th, 1893; after this they became common; I believe they breed in the vicinity. (*Spreadborough.*) Arrived April 11th at Nisqually and May 13th at Goldstream, Vancouver Island, where it was an abundant migrant, associating at times with *C. niger*. Seen at Lac la Hache, B.C., July 1st. (*Rhoads.*)

MUSEUM SPECIMEN.

One specimen taken at Trail, B.C., near the International Boundary, May 29th, 1902, by Mr. Spreadborough.

FAMILY XXXVII. **TROCHILIDÆ.** HUMMING-BIRDS.CLVII. **TROCHILUS** LINNÆUS. 1758.426. **Ruby-throated Humming-bird.**

Trochilus colubri. LINN. 1758.

A single individual, a male, was seen within four feet of me July 17th, 1882, on the hill top (825 feet elevation) back of the

station at Davis Inlet; Audubon states that few were seen by him in Labrador. (*Packard.*) An abundant summer visitor in Nova Scotia. Comes when the red maple is in bloom. (*Downs.*) Rather common at Baddeck and other parts of Cape Breton Island, August, 1898. (*Macoun.*) Not observed but undoubtedly occurs on Prince Edward Island. Mr. Earle showed me a stuffed specimen. (*Dwight.*) An occasional summer resident at St. John, N.B. (*Chamberlain.*) Summer resident, but not common; breeds at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Taken at Beaufort; a common summer resident in Quebec. (*Dionne.*) Seen from May 27th to August 12th, 1858, in Argenteuil Co., Que. (*D'Urban.*) Summer resident at Montreal; common. Breeds in the city gardens and in Mount Royal Park, but their nests are not often found on account of their diminutiveness. On their arrival in Montreal in spring the flowers of the wild gooseberry and lilac bushes are their favorite resorts and later on they frequent horse-chestnut blossoms, wild columbine and cultivated flowers. (*Wintle.*)

Common summer resident at Ottawa. A nest with two fresh eggs was taken July 12th, 1890, by Messrs. W. E. & F. A. Saunders. (*Ottawa Naturalist*, Vol. V.) Plentiful during migration in Muskoka and Parry Sound districts. At Emsdale, the males arrive soon after the 15th of May, the females a few days later; I think some go further north but a great many remain to breed. (*J. H. Fleming.*) Not common in Algonquin Park, Ont., only three observed from May 25th to June 17th, 1900. (*Spreadborough.*) Common at Kew Beach, Toronto. Several pairs visit my garden every summer and feed on the flowers of the nasturtiums and scarlet-runners. (*W. Raine.*) This species is a common summer resident around Winnipeg and westward in diminishing numbers. Macoun took it at the head of Lake Winnipegosis, Aug. 16th, 1881. (*Thompson-Seton.*) We obtained specimens of this species on the plains of the Saskatchewan, and Mr. Drummond found one of its nests near the source of the Athabasca River. This nest was composed principally of the down of the anemone, bound together with a few stalks of moss and bits of lichen. It ranges in summer as far north as Lat. 57° and may go even further. (*Richardson.*)

BREEDING NOTES.—Generally distributed in Ontario. Breeds commonly about the middle of June. One nest I saw was on the outermost branch of a beech. The eggs were destroyed by black-

birds and the nest torn down on July 12th. Another nest was on a dead limb of a small hemlock. The nest, like the wood-pewee's, is built on the upper side of the limb. (*Rev. C. J. Young.*) A nest taken at Ottawa was built on a horizontal branch of a tree. It was built of gray lichen lined with soft plant down. Eggs two, pure white, blushed with pink. (*G. R. White.*)

MUSEUM SPECIMENS.

Two; one taken at Ottawa, the other at Toronto, Ont., by Mr. S. Herring.

One set of two eggs taken at Toronto, June 10th, 1891, by Mr. W. Raine. Nest in the fork of an apple tree. Another nest taken near Ottawa in the fork of a plum-tree; built of the usual gray lichen, (*Parmelia saxatilis*).

429. **Black-chinned Humming-bird.**

Trochilus alexandri BOURC. & MULS.

Confined to the mainland; on both slopes of the Coast Range. (*Fannin.*) Summer resident at Chilliwack; not common. (*Brooks.*) This species was found in some abundance at Agassiz, B.C., in May, 1889, and a few at Spence's Bridge, B.C., on the mountain back from the bridge. (*Spreadborough.*)

MUSEUM SPECIMEN.

One specimen; taken at Agassiz, B.C., May 13th, 1889, by Mr. Spreadborough.

CLVIII. **SELASPHORUS** SWAINSON. 1831.433. **Rufous Humming-bird.**

Selasphorus rufus (GMEL.) SWAINS. 1831.

This species was discovered at Nootka Sound by Captain Cook, and I have before me one of the identical specimens. (*Richardson.*) This species is a summer resident at Sitka and beyond, thus occurring far along the coast of the North Pacific. (*Nelson.*) Tolerably common in the more open clearings about Sitka, Alaska, and along the quiet shores of the secluded inlets. A nest with eggs nearly hatched was found on June 10th. It was five feet from the ground on a horizontal branch of a fir tree. (*Grinnell.*)

Common on Vancouver Island and throughout British Columbia. (*Lord.*) Moderately common everywhere in British Columbia. (*Streator.*) West of the Coast Range; an abundant summer resident; the only one to my knowledge on Vancouver Island. (*Fannin.*) Common summer resident at Chilliwack. (*Brooks.*) This was a common species at Banff, Rocky Mountains, Alta., during the season of 1891, breeding in numbers on the lower branches of the spruce, especially about Vermillion Lakes. Observed several in the Crow's Nest Pass in August, 1897; first seen at Revelstoke, B.C., April 30th, 1890, after that date became very common, still very numerous on May 30th, feeding on raspberry bushes; only occasionally seen at Deer Park and Robson on the Columbia River, in June, 1890; quite common on Mount Queest, Gold Range, B.C., at an altitude of 6,500 feet, in August, 1889; not uncommon at Waterton Lake, Alta., at the eastern base of the Rocky Mountains in July, 1895; a few seen at Chilliwack and McGuire's ranch, Chilliwack River, B.C., June, 1901; a few seen near the International Boundary between Trail and Cascade; very abundant along Murphy Creek trail, just north of Rossland, in July, 1902. First seen at Victoria, Vancouver Island, April 22nd, 1893, and common by the 25th. At this date they were feeding in great numbers on the wild gooseberry, (*Ribes divaricatum*). A summer resident throughout the island. (*Spreadborough.*) Incredibly numerous on the coast during April migrations; nesting at Nisqually while night frosts still lingered and mercury averaged 45° to 50° during the day. Scarcely less common in many parts of the interior districts and found on the summits of the highest mountains, including the Rockies; nests with eggs nearly hatched found April 18th, 1892. (*Rhoads.*) On June 15th, 1893, I found this species to be common along Vermillion Lakes at Banff, Rocky Mountains. Three specimens were shot and a nest was found containing two eggs. The nest was attached to the branch of a spruce tree seven feet from the ground. (*W. Raine.*) Mr. T. W. Hanmore, who has been stationed at Tyonck, Cook's Inlet, Alaska, for eleven years, says that he has seen humming-birds there several times. (*Osgood.*) One specimen seen on Eagle Island, Lynn Canal, and one at Glacier, above Skagway, and a nest with two eggs taken. One was seen at West Arm of Lake Bennet about Lat. 60°, B.C., on June 24th, 1899. (*Bishop.*)

MUSEUM SPECIMENS.

Twenty-five; one taken at Banff, Rocky Mountains; fifteen at Revelstoke, B.C.; two at Spence's Bridge, B.C.; one at Burrard Inlet, B.C.; and four at Victoria, Vancouver Island, all by Mr. Spreadborough.

One set of two eggs taken at Banff, June 13th, 1893, by Mr. W. Raine. Nest attached to the end of a limb of a spruce tree about fifteen feet from the ground.

434. **Allen's Humming-bird.**

Selasphorus allenii HENSH. 1877.

Eastern Coast Range and Rocky Mountain districts. (*Fannin.*) One specimen shot about six miles up Eagle Pass, west from Revelstoke, B.C., May 25th, 1890; next day another specimen was taken at Revelstoke; not uncommon at Sicamous, B.C., in July, 1889. (*Spreadborough.*)

MUSEUM SPECIMENS.

Two; taken in Eagle Pass and at Revelstoke, B.C., by Mr. Spreadborough.

CLIX. **STELLULA** GOULD. 1861.436. **Calliope Humming-bird.**

Stellula calliope GOULD 1861.

Summit of Rocky Mountains; alt. 7,000 feet. (*Lord.*) East and west of Coast Range. (*Fannin.*) Common at the Crow's Nest Pass, Alta., in August, 1897; breeding in considerable numbers at Banff, Rocky Mountains, in June and July, 1891; while camped at Deer Park, Lower Arrow Lake, Columbia River, B.C., in the early part of June, 1890, I took seven specimens and they were so abundant that many others could have been taken. They were not observed examining flowers but were seen perching on small trees and chasing small flies and returning again to their perch just as small flycatchers do. Farther down the river at Robson this species was quite rare. In May, 1889, it was not uncommon at Spence's Bridge, at an altitude of 3,500 feet, and a number were taken; saw a number in a marsh in Depot Creek, east side of Chilliwick Lake, B.C., July, 1901. Observed at Trail and Cascade, B.C., near the International Boundary, in the sum-

mer of 1902. (*Spreadborough*.) A very few small "hummers" frequenting the interior and southern Rocky Mountain districts, B.C., were probably *S. calliope*. (*Rhoads*.)

MUSEUM SPECIMENS.

Five; two taken at Banff, Rocky Mountains; two at Deer Park, Columbia River, B.C.; and one at Spence's Bridge, B.C., all by Mr. Spreadborough.

One set of two eggs taken at Elka Station, on the Crow's Nest Pass Railway, B.C., June, 1900, by Mr. J. Keele. The nest differs from that of the rufous humming-bird in being smaller and having less lichen on the outside. It was fastened to the small twigs of a dead branch of a spruce tree.

ORDER PASSERES. PERCHING BIRDS.

FAMILY XXXVIII. **TYRANNIDÆ.** TYRANT FLYCATCHERS.

CLX. **MUSCIVORA** LACÉPÈDE.442. **Scissor-tailed Flycatcher.**

Muscivora forficata. (GMEL.) OBERHOLSER. 1901.

The swallow-tailed flycatcher (*Muscivora forficata*) is such a characteristically southern bird that its accidental occurrence in Manitoba is worthy of note. Last January I was shown a splendid specimen taken at Portage la Prairie by Mr. Nash. He found it lying dead on the prairie on the 20th October, 1884. Its stomach was empty and the bird very emaciated, although in fine plumage. On the previous night there was a sharp frost. In addition to this record, I quote the following rather startling statement from the report on the Hudson Bay, by Professor Bell, of the Canadian Geological Survey, 1882. "But the most singular discovery in regard to geographical distribution is the finding of the scissor-tail, or swallow-tailed flycatcher (*Muscivora forficata*) at York Factory, Hudson Bay. The specimen in the Government Museum was shot at York Factory in the summer of 1880, and I have learned since that these remarkable birds were occasionally seen at the posts of the Hudson Bay Company, all the way west to the valley of the Mackenzie River." (*Thompson-Seton*.) On July 9th, 1899, the writer was out in the country about 26 miles north of Winnipeg, and being out for a walk about 5:30

a.m. noticed a bird with an enormous tail (about twelve inches long) sitting on a bare limb of a poplar tree about 100 yards from me. On closer inspection I found it to be opening and closing its tail. I am quite sure it was a scissor-tailed flycatcher. (*L. Osborne Scott* in *Ottawa Naturalist*, Vol. XIII, p. 195.) The specimen taken by Mr. C. W. Nash in Manitoba and referred to above is now in the collection of Mr. J. H. Fleming in Toronto.

MUSEUM SPECIMEN.

One specimen taken at York Factory, Hudson Bay, and presented to the museum by Dr. R. Bell.

CLXI. **TYRANNUS** CUVIER. 1799.444. **King-bird.**

Tyrannus tyrannus (LINN.) JORDAN. 1884.

Audubon (Vol. I., p. 207) found it breeding in Labrador. (*Packard*.) A common summer resident in Newfoundland. (*Reeks*.) Common summer resident in Nova Scotia, but rare at Halifax. (*Downs*.) A common summer resident at Sydney, Cape Breton Island, N.B. (*C. R. Harte*.) Fairly abundant from the middle of May to the middle of September at Wolfville, N.S. (*H. Tufts*.) Not rare at Baddeck and Margaree, Cape Breton Island, July, 1898; breeding and rather common at Brackley Point, Prince Edward Island, 1888. (*Macoun*.) Rather common on Prince Edward Island, 1892. (*Dwight*.) An abundant summer resident in New Brunswick. (*Chamberlain*.) Observed only at Point du Chêne, in New Brunswick. (*Brewster*.) Common summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore*.) Seen only in the neighbourhood of houses; very rare in the valley of the Restigouche, N.B. (*Brittain & Cox*.)

Only one specimen seen on the Magdalen Islands. (*Bishop*.) Taken at Beauport; a common summer resident in Quebec. (*Dionne*.) Quite common at Bevin's Lake and Hamilton's farm, River Rouge, Argenteuil Co., Que. (*D'Urban*.) Common summer resident in the Montreal district. (*Hindle*.)

Common summer resident in the Ottawa district; breeds abundantly. (*Ottawa Naturalist*, Vol. V.) Abundant in the settled districts as a summer resident in the Muskoka and Parry Sound districts. (*J. H. Fleming*.) Common everywhere along the shores of the lakes in Algonquin Park, Ont. A pair nested

in a canoe birch overhanging the water near the buildings at C  che Lake. Other birds were nesting near them but were not interfered with. On the other hand they allowed no intruders around their tree and sat peacefully on the tree or caught flies when necessary in the immediate vicinity. (*Spreadborough.*)

An extremely numerous summer resident wherever there are trees throughout Manitoba. (*Thompson-Seton.*) First observed at Indian Head, Assa., May 27th, 1892; after which they became common and a steady stream was seen flying north on June 2nd; very abundant all summer, breeding in great numbers; in the summers of 1894 and 1895 this species was found in profusion throughout the whole prairie region, and every piece of brush or patch of rose bushes from Moose Jaw to the Rocky Mountains had one or more nests; only two pairs were seen at Banff, Rocky Mountains in the summer of 1891; quite common at Revelstoke, B.C., and at Deer Park, Lower Arrow Lake, and at Robson in June, 1890; common at Trail and Cascade, B.C., in the summer of 1902; it was found more or less common all the way to the Pacific coast in 1889; common at Chilliwack, B.C., in the spring of 1901; more seen in the autumn. First seen at Edmonton, Alta., on May 17th, 1897, common by the 19th. June 10th found a nest in a willow about 12 feet from the ground, with three fresh eggs. Nest composed of weeds lined with grass and horse hair. Common in the foothills southwest of Calgary in July. (*Spreadborough.*) One specimen seen at Grand Rapids of the Athabasca. A few birds seen at north end of Methye Portage, Lat. 56  . A few specimens between Methye Lake and Isle    la Crosse. (*J. M. Macoun.*) Common at the Grand Rapids of the Saskatchewan and Chemawawin. (*Nutting.*) This well known bird is common on the banks of the Saskatchewan, and ranges in summer to Lat. 57  , or beyond it. (*Richardson.*) North to Fort Simpson on the Mackenzie River; rare. (*Ross.*) Vancouver Island and throughout British Columbia. (*Lord.*) Abundant in the interior and decreasing in numbers towards the coast. (*Streator.*) East and west of the Coast Range; more common on the mainland; a summer resident. (*Fannin.*) Common summer resident at Chilliwack. (*Brooks.*) Abundant in the interior of British Columbia. (*Rhoads.*)

BREEDING NOTES.—Common everywhere in Ontario. Its nest is sometimes found as late as the middle of July with fresh eggs. (*Rev. C. J. Young.*) I examined a nest of this bird June 30th,

1880, which was built in a thorn bush in Mount Royal Park. It contained younglings covered with white down. Observed from May 4th to August 22nd. (*Windle.*) Nest found on Duck Island near Ottawa, Ont.; 1st July, 1897, in a low bush, was composed of fibrous roots and dried vegetable substances, lined with fine grass; eggs four, creamy white, spotted and blotched with reddish and dark brown spots. (*G.R.White.*) On July 21st, 1882, down by the slough in a low bush, found a king-bird's nest. It was just completed and contained no eggs yet. The king and his wife made more fuss over my intrusion than most birds would have done had the nest been full of young ones. Further on I found another nest of this species. It was placed on the top of a stub, about eight feet high. The bird flew off. The nest was made of roots and fine fibres and contained four eggs. One of them measured $1\frac{1}{8}$ by $\frac{5}{8}$; it was creamy white, with a few clear spots of brown and lavender, inclined to form a wreath about the large end; the others were similar; all were quite fresh. (*Thompson-Seton.*) The king-bird breeds in the low scrubby oak trees which cover the sand-hill in western Manitoba, building, like the shrike, a nest consisting largely of the stalks of a species of *Gnaphalium*. After the young are able to fly they often live around the settler's houses on the open prairie, but about the end of August they all leave. (*Christy.*) Extremely numerous at Pembina, where many nests were taken after the middle of June, and traced westward as far as the survey progressed that year. One of the nests (No. 3062) was placed on a rail fence, in the crotch formed by a post. In the Missouri region, it was equally abundant from Fort Buford to near the headwaters of the Milk River. Many nests containing two to four eggs were taken the latter part of June and early in July. One of these was particularly interesting, showing that the summer warbler is not the only species that builds a second story to the nest and thus leaving the alien eggs to addle in the basement below. A nest taken near Frenchman's River containing two eggs seemed to be a curiously built affair, and on examining it closely I found the wrong egg embedded in its substance below the others (No. 4185.) The king-bird is not so much attached to woodland as has been supposed. I saw great numbers whilst travelling by rail on the prairies of Minnesota and Dakota, where it seemed to be as much at home as anywhere. All things considered, it may be rated as one of the most abundant and generally diffused species of the

whole region under consideration. (*Coes.*) The nests of this species are usually built in an apple tree in some orchard, and are constructed of dried grasses, weed stems, wool and hair. Wool is the most conspicuous article used in building. One nest observed was within three feet of the ground, being situated in a small apple tree and was plainly exposed, there being nothing whatever to conceal it. (*W. H. Moore.*)

MUSEUM SPECIMENS.

Eleven; one purchased with the Holman collection in 1885; three taken at Ottawa, two of these by Prof. Macoun and one by Mr. F. A. Saunders; one taken at Carberry, Man., by Mr. Thompson-Seton; two at Medicine Hat, Assa., two at Banff, Rocky Mountains, one at Deer Park, B.C., and another at Kamloops, B.C., all by Mr. Spreadborough.

Four sets of eggs. One set of four eggs, taken on Gull River, Minden, Ont., June 16th, 1896, by Mr. A. E. Barlow; one set of four taken on Gull River, Minden, Ont., June 14th, 1894, by Mr. A. A. Cole. Nest in an alder three inches above the water of Gull River. One set of three, taken in a wild rose bush, at Crane Lake, Assa., June 12th, 1894; by Prof. Macoun. One set of three, taken at Edmonton, Alta., June 10th, 1897, by Mr. Spreadborough.

445. **Gray King-bird.**

Tyrannus dominicensis (GMEL.) RICHARDSON. 1837.

One specimen taken at Cape Beale (west coast of Vancouver Island, September 29th, 1889, by Miss Cox, and presented to the museum at Victoria. (*Fannin.*)

447. **Arkansas King-bird.**

Tyrannus verticalis SAY. 1823.

Two specimens of this species, an adult and one in first plumage, were taken by Mr. D. Losh Thorpe at Souris coalfields, August 20th, 1891, a little west of Manitoba. (*Thompson-Seton.*) Observed at Old Wives' Creek, Assa., its most eastern limit as far as my observation goes, on May 26th, 1895; also at Medicine Hat, Assa., in May, 1894; nesting both at Medicine Hat and Crane Lake; quite common at Castellated Rocks, near the West Butte, on Milk River, in July, 1895, and westward to the Rocky Mountains; breeding in great numbers in southern Alberta; one pair

seen on the Columbia River, about eight miles below Deer Park, B.C., June 18th, 1890; not rare at Trail and Cascade, B.C., in the summer of 1902; taken at Sicamous, Kamloops and Agassiz in 1889. One pair seen at Chilliwack, B.C., May 27th, 1901. (*Spreadborough.*) This species finds its northern limit in British Columbia a few miles south of Clinton. It ranges east in the breeding season to the Selkirk Mountains. I did not find it on the coast. (*Rhoads.*) Vancouver Island and throughout British Columbia. (*Lord.*) Not common on the coast, but more abundant in the interior. (*Streator.*) East and west of Coast Range, but chiefly on the mainland; found breeding at Ashcroft. (*Lanning.*) Summer resident; tolerably common at Chilliwack. (*Brooks.*)

BREEDING NOTES.—In the Red River region *T. carolinensis* alone represents the genus; but throughout the Upper Missouri and Milk River country the two are found together, and it is hard to say which is the most numerous. They have much the same general habits and often associate intimately together; indeed, I have known one tree to contain nests of both species. The cries of *verticalis* are louder and harsher, with less of a sibilant quality, than those of the king-bird; but there is little else to note as different. The nests of the *verticalis* are bulky and conspicuous, all the more easily found because the bird has a way of leaving the general woods of the river bottom to go up to the ravines that make down from the hillsides, and there nest on some isolated tree, miles away, perhaps, from any landmark. Taking nests of both species at the same time, I found that those of *verticalis* were generally distinguishable by their larger size and softer make, with less fibrous and more fluffy material; but the eggs, if mixed together, could not be separated with any certainty. The sets of eggs taken during the latter part of June consisted of from three to six. Eggs were found as late as the second week of July. The nests were placed in trees at a height of from five or six to forty or fifty feet, generally in the crotch of a horizontal limb, at some distance from the main trunk; but in one case a nest was placed in the crotch which the first large bough made with the trunk. In one case a pair of the flycatchers built in the same tree that contained the nest of Swainson's buzzard, and both kinds of birds were incubating at peace with each other, if not with all the world, when I came along to disturb them. In another one they nested with a pair of king-birds. The birds display admirable courage in

defense of their homes, losing in their anxiety all sense of danger to themselves. (*Coues*.)

MUSEUM SPECIMENS.

Sixteen ; one taken at Old Wives' Creek, Assa.; eight at Medicine Hat, Assa.; one at Enderby, B.C.; one at Spence's Bridge, B.C.; and three at Agassiz, B.C.; all by Mr. Spreadborough.

CLXII. **MYIARCHUS** CABANIS. 1844.

452. **Crested Flycatcher.**

Myiarchus crinitus (LINN.) LIGHT. 1854.

Have observed this species at Scotch Lake, York Co., N.B., in August ; they seemed to be migrating in families. (*W. H. Moore*.) Taken near Woodstock, N.B., by Mr. Purdie in 1878. (*Chamberlain*.) Rare summer resident in woods near Quebec. (*Dionne*.) Common summer resident in the district of Montreal. (*Wintle*.)

A common summer resident in the Ottawa district. (*Ottawa Naturalist*, Vol. V.) Reported as common at Beaumaris on May 12th, 1898, by Mr. Tavernier ; I believe it will be found distributed over both Muskoka and Parry Sound districts in summer. (*J. H. Fleming*.) A common summer resident at London and in Bruce Co., Ont. (*W. E. Saunders*.)

A very rare summer resident of thick woods in Manitoba and northwest to Lake Winnipegosis where Macoun shot it in 1881; there are also three specimens in the Museum at Winnipeg taken by Hine. (*Thompson-Seton*.)

BREEDING NOTES.—One of those birds that within the last fifteen years are certainly becoming commoner in Ontario. They are numerous in the vicinity of Kingston and on Wolfe Island. A curious breeding habit is the use of snake skins in the nest, which is always placed in the hole of a tree. I never saw a nest without pieces of snake skin. They commence to lay about the 1st of June, and are by no means rare now, 1901. (*Rev. C. J. Young*.) This large flycatcher has the peculiar habit of placing around the edge of its nest the cast-off skin of a snake, which is probably done to protect its nest from squirrels taking possession of the hollow wherein the nest is built, as, no doubt, the sight of a snake's skin coiled up would scare that little animal away. I

have shot specimens of this species in the months of May and August and noticed the plumage very fine in the latter month. Observed from May 8th to August 28th. (*Wintle.*) Found this species nesting at Rice Lake, Ont., June 16th, 1902. (*W. Raine.*) Nests quite frequently at Ottawa, Ont. Nest is generally built in a hole in tree about ten feet or more from the ground, where a large branch has been blown off. The nest is composed of straw, leaves, rootlets and vegetable matter, lined with feathers and pieces of snake skin. Eggs, four to five, light buffy brown, streaked lengthwise by lines and markings of purplish and dark brown. A nest found on May 2nd had the young half-grown. (*G. R. White.*)

MUSEUM SPECIMENS.

Four; one purchased with the Holman collection in 1885; two taken at Ottawa, and one at Belleville, Ont., by the writer.

One set of eggs taken near Toronto, Ont., May 25th, 1895, by Mr. W. Raine. Nest in a hole in a poplar 15 feet from the ground.

CLXIII. **SAYORNIS** BONAPARTE. 1854.456. **Phæbe.**

Sayornis phæbe (LATH.) STEJN. 1885.

A summer migrant in Newfoundland but not common. (*Reeks.*) One pair seen near Dominion Mine, Sydney, Cape Breton Island, N.S., August 30th, 1901. (*C. R. Harte.*) A common summer resident in New Brunswick. (*Chamberlain.*) A rare spring migrant at Scotch Lake, York Co., N.B. (*W. H. Moore.*) An irregular summer visitor at Beauport, Que. (*Dionne.*) A common summer resident at Montreal. Breeds in Mount Royal Park. Nests with eggs found from May 17th to June 9th. Observed from April 3rd to October 8th. (*Wintle.*) Common summer resident in the Ottawa district; usually building its nest close to houses or on the verandah. (*Ottawa Naturalist*, Vol. V.) Abundant summer resident in Muskoka and Parry Sound districts. (*J. H. Fleming.*) One specimen observed at Dog Lake, northern Ontario, May 30th, 1896. (*Spreadborough.*) Very common everywhere in Ontario and one of the first arrivals in spring, when the weather is still cold. (*Rev. C. J. Young.*) Rare summer resident in Manitoba, one or two pairs seen each season; usually nests

under bridges at Winnipeg; tolerably common (apparently?) as far west as Qu'Appelle. (See Thompson-Seton, p. 560.) Spreadborough spent a summer at Indian Head, about 10 miles south of Qu'Appelle, and never saw or heard one and I am led to believe that the pair noted at Qu'Appelle and at Oak Point, Lake Manitoba, was *Contopus virens* and not *Sayornis phœbe* as the observer thought. (Macoun.) Apparently not common at the Grand Rapids of the Saskatchewan; only one specimen secured. (Nutting.) A pair had a nest beneath the wharf at Norway House, Keewatin, and several more nests were observed on June 28th, as we were passing through Hell Gate. The nests were placed on the cliffs overhanging the water. (Prebles.)

First saw one April 19th, 1897, at Edmonton, Alta., next on May 7th, nesting under a bridge, nest built of weeds and moss, lined with grass and horse hair, rather bulky. On June 2nd found a nest with five eggs in a coal-shed. (Spreadborough.) First noticed at Athabasca Landing May 23rd, 1888. The commonest bird up the Athabasca to Lesser Slave River. Eggs had been incubated about a week on June 1st. Common up the Clearwater River, about Lat. $56^{\circ} 30'$, and not rare on Methye Portage; common between Methye Lake and Isle à la Crosse. (J. M. Macoun.)

BREEDING NOTES.—Nest found 21st June at Lac des Isles, built on the end of a fallen tree overhanging the water, composed of mud, grass and moss, lined with fine grass and feathers; eggs, five, white. (G. R. White.)

MUSEUM SPECIMENS.

Four; two taken at Ottawa by the writer; one at Toronto by Mr. S. Herring; and one at London, Ont., by Mr. W. E. Saunders.

One set of four eggs taken at Port Hope, Ont., April 20th, 1900, by M. N. H. Meeking. Nest of grass, wool, moss, hair, bark and various soft material, placed under a projecting bank of a creek $2\frac{1}{2}$ feet from the water.

457. Say's Phœbe.

Sayornis saya (BONAP.) BAIRD. 1858.

One specimen was observed at Indian Head, Assa., on May 20th, 1892, which was the only one seen; not uncommon at Medicine Hat and Crane Lake. Assa., June, 1894; at Crane Lake a pair built a nest on the verandah of the farm house just as the phœbe

does in the east, and another pair built their nest on a pole passing through the horse corral; in June, 1895, a pair was observed in the "Bad Lands" south of Wood Mountain; and westward in the Milk River valley they were quite numerous, breeding on the ledges in the cliffs; a pair was seen at Banff, Rocky Mountains, Alta., in 1891; a few individuals seen at Edmonton, Alta., in May, 1897; not rare in the foot-hills from Calgary to Crow's Nest Pass, not uncommon at Sicamous, Kamloops, and Spence's Bridge, B.C., 1889; only two specimens seen on Stubb's Island, Barclay Sound, Vancouver Island, August 25th, 1893. (*Spreadborough*.) One individual appeared at Carlton House on the 13th May, when it settled on a low garden fence, flitting from place to place when disturbed; it was soon obtained and a female was shot afterwards. (*Richardson*.) North to Fort Simpson, on the Mackenzie River; rare. (*Ross*.) Several specimens of this bird were brought to me from Fort Reliance, on the Upper Yukon, in Lat. 66°. (*Nelson*.) This species was noted at Glacier in the White Pass, on the mountain side at Bennett, at Fort Selkirk, at Stewart River, at Charlie River, Yukon district; and at Circle City, in Alaska, in 1899. (*Bishop*.) British Columbia. (*Lord*.) Common in the interior; abundant during the migrations. (*Streator*.) East and west of Coast Range; but chiefly on the mainland; summer resident. (*Fannin*.) Rare migrant at Chilliwack. (*Brooks*.) Not common; same distribution as *Tyrannus verticalis*. (*Rhoads*.)

BREEDING NOTES.—Nests quite commonly in Assiniboia, building its nest on rafters in barns and laying four white eggs. (*W. Raine*.) May 27, 1894, at Medicine Hat, found nest in the unfinished Industrial School. The nest was very compact, composed of fine grass, weeds, wool, cotton and a few feathers. Eggs, five, pink before being blown, white afterwards. (*Spreadborough*.)

MUSEUM SPECIMENS.

Four; three taken at Medicine Hat, Assa., and one at Edmonton, Alta., June 2nd, 1897.

Three sets of eggs of five each. One taken at Medicine Hat, Assa., May 27th, 1895; the other taken at Edmonton, Alta., June 2nd, 1897, both by Mr. Spreadborough; one at Fort Saskatchewan, Alta., taken by Mr. John Callaghan, May 3rd, 1898. Nest made of roots and moss, lined with feathers and built in a stable.

CLXIV. **CONTOPUS** CABANIS. 1855.459. **Olive-sided Flycatcher.***Contopus borealis* (SWAINS.) BAIRD. 1858.

One shot at Nenortatik, Greenland, 29th August, 1840, and sent to Copenhagen. (*Arct. Man.*) Audubon, Vol. I., p. 252, records it from the coast of Labrador. (*Packard.*) One observed on Moose River near Moose Factory, James Bay, June 4th, 1896 (*Spreadborough.*) A common summer resident in Nova Scotia (*Downs.*) Rather common at Baddeck and Margaree, Cape Breton Island, N.S.; July, 1898; breeding in woods at Brackley Point, Prince Edward Island, July, 1888. (*Macoun.*) One specimen was observed at Souris, Prince Edward Island. Prof. Earle was familiar with it. (*Dwight.*) A common summer resident in New Brunswick. (*Chamberlain.*) Summer resident at Scotch Lake, York Co., N.B.; but not common; members of the same family keep together when going south. (*W. H. Moore.*) Common in the Restigouche valley, N.B. (*Brittain & Cox.*) A single specimen noted at Plaster Cove, Cape Breton Island on June 23rd. (*Brewster.*) Common summer resident in Quebec. (*Dionne.*) A scarce summer resident at Montreal. Breeds in Mount Royal Park; arrives about May 8th and leaves about August 20th. (*Wintle.*)

A summer resident in the Ottawa district, but rare. (*Ottawa Naturalist*, Vol. V.) Rare at Toronto; but common in Muskoka and Parry Sound districts. In the spring of 1894 I found this flycatcher not uncommon in the country between Kearney and Sand Lake; they frequented the tops of the very tallest dead trees. (*J. H. Fleming.*) Quite an uncommon bird at Toronto. I took one on August 17th, 1897, and saw one during the past fall (1900); two were taken at Port Credit, 27th August, 1894, by Mr. Massey; I have seen three or four other specimens during the last four or five years. (*J. Hughes-Samuel.*) A very rare summer migrant near London, Ont., but a common breeder in North Bruce. (*W. E. Saunders.*) Abundant and breeding everywhere in swamps in Algonquin Park, Ont., June, 1900. (*Spreadborough.*) Observed but once, on July 4th, 1900, in a swamp bordering Trout River, between Oxford House and Knee Lake, Keewatin, (*Prebles.*)

A common summer resident of woodlands throughout northern Manitoba. On July 26th, 1883, in the tamarac swamp beyond

the spruce bush I noticed a very noisy flycatcher; its note was loud, and its habits were much like those of the great crested flycatcher. After some trouble, for it was very shy, and kept chiefly among the topmost branches of certain dead trees, I succeeded in getting it. It proved to be a male olive-sided flycatcher; length seven inches; stomach full of flies. (*Thompson-Seton*.) One specimen seen at Indian Head, Assa., 1892. Not observed anywhere in the prairie region, but common at Banff, Rocky Mountains, Alta., in 1891, where it was breeding in numbers; in the spring of 1890 it was common at Revelstoke and west to Eagle Pass where they were breeding; this species was also common at Deer Park, Lower Arrow Lake; and Robson, Columbia River, where they had young; common on the International Boundary between Trail and Cascade, 1902; this species was seen at various points in B.C.; at Sicamous and Spence's Bridge high up on the mountains in 1889; observed one at Chilliwack, B.C., June 5th, one at McGuire's ranch June 16th; also one at Deer Ridge, August 10th, 1901; a summer resident throughout Vancouver Island; in burnt forest quite common. (*Spreadborough*.) Only one specimen of this species was procured. It was shot on the banks of the Saskatchewan as it was flying near the ground. (*Richardson*.) North to Fort Resolution on Great Slave Lake; rare. (*Ross*.) One specimen shot on Athabasca River, a short distance above Grand Rapids, June, 1888. (*J. M. Macoun*.) A single specimen of this bird was brought to me from the lower Yukon in Lat. 63°, and is the only instance of its capture on record in Alaska. (*Nelson*.) A specimen from Fort Kenai, Cook's Inlet, is in the National Museum at Washington. It is an adult male taken by Bischoff May 26th, 1869. (*Osgood*.) At Six-mile River I took a female of this species and heard it at Bennett and shot one, but not found at Carribou Crossing, B.C., about Lat. 60°. (*Bishop*.) British Columbia. (*Lord*.) A not uncommon and generally distributed summer resident. (*Streator*.) East and west of Coast Range; a common summer resident. (*Fannin*.) Summer resident at Chilliwack; not common. (*Brooks*.) Breeding at high altitudes in the east Coast Range and Rocky Mountain districts of B.C. (*Rhoads*.)

BREEDING NOTES.—Rare in the counties of Leeds, Renfrew, etc. In the county of Leeds I twice identified this bird. As this was in the summer, it may occasionally breed, as it is reported to

do on Mount Royal near Montreal. (*Rev. C. J. Young.*) On June 20th, 1893, at Long Lake, Manitoba, I found a nest and two eggs of this bird. The nest was like a large wood pewee's and saddled on to the limb of a tree eight feet from the ground. (*W. Raine.*)

MUSEUM SPECIMENS.

Six; three taken at Banff, Rocky Mountains, one at Revelstoke, B.C., one at Chilliwack, B.C., and one at Victoria, Vancouver Island, all by Mr. Spreadborough.

Two sets of three eggs each, both taken at Wolfville, N.S., by Mr. H. Tufts. One was taken on June 6th, 1898. The nest was on a spreading horizontal branch of a spruce 25 feet from the ground and about three feet from the trunk. It was composed of twigs and small vines with rootlets. The other was taken June 17th, 1894. It was on a spreading fir limb about 30 feet from the ground. The nest was composed of twigs lined with grass.

461. **Wood Pewee.**

Contopus virens (LINN.) CAB. 1855.

Audubon, Vol. I., p. 233, records it (probably erroneously) from Labrador. (*Packard.*) I am inclined to believe that this is the bird that Mr. Reeks names *Sayornis phæbe* and also the same that Mr. Turner referred to and that Mr. Packard is in error in referring it to *Contopus richardsonii*. (*Macoun.*)

Common summer resident in Nova Scotia. (*Downs.*) Shot in Brackley Point woods, Prince Edward Island, August 22nd, 1888. (*Macoun.*) Not common, though now and then met with in certain localities in Prince Edward Island. (*Dwight.*) Common summer resident in New Brunswick. (*Chamberlain.*) Tolerably common summer resident at Scotch Lake, York Co., N.B. Nests built on horizontal limbs from 10 to 50 feet from the ground. (*W.H. Moore.*) Heard in the valley of the Restigouche, N.B. (*Brittain & Cox.*) Summer resident in Quebec. (*Nionne.*) Common summer resident around Montreal; breeds in Mount Royal Park. (*Wintle.*)

Common summer resident in the Ottawa district. (*Ottawa Naturalist*, Vol. V.) A common breeding species in Muskoka and Parry Sound districts. (*J. H. Fleming.*) Rather rare in Algonquin Park, Ont. Only a few specimens seen in two months in 1900. (*Spreadborough.*) A tolerably common summer resident of

woods in the vicinity of Winnipeg, but more abundant to the north. (*Thompson-Seton*.) Only noticed at Pembina (Lat. 49°), which is probably at or near its northwestern limit. (*Coues*.)

BREEDING NOTES.—Quite common in beech and maple groves in the county of Leeds, Ont., and around Kingston. I have frequently seen the nest, sometimes as late as July 15th, usually on the upper side of a bough of a beech tree, but occasionally on a maple. I never saw more than three eggs in a nest, several times only two. (*Rev. C. J. Young*.) Mr. A. C. McKeand found a nest of this flycatcher containing three eggs June 26th, 1885, in Mount Royal Park; the nest was attached to the fork of a small horizontal branch of a tree growing on the top of the mountain. The nest of this bird is a difficult one to discover as it is generally built upon a thick horizontal branch. (*Wintle*.) This species breeds at Kew Beach, Toronto. It seldom lays more than three eggs in a beautifully built nest, externally covered with pieces of lichen after the manner of the ruby-throated hummingbird. (*W. Raine*.)

MUSEUM SPECIMENS.

Four; two taken at Ottawa and one near Toronto by Mr. S. Herring; one taken in Algonquin Park, Ont., by Mr. Spreadborough.

Two sets of three eggs each; one taken near Ottawa in June, 1892, by Mr. A. G. Kingston; and one at Toronto by Mr. J. Parke, July 10th, 1897. The latter nest was lined outside with lichens and inside consisted of hair, roots, &c.

462. **Western Wood Pewee.**

Contopus richardsonii (SWAINS.) BAIRD, 1858.

Audubon, Vol. I., p. 220, states that he found it breeding in Labrador. (*Packard*.) A tolerably common summer resident in woods and bluffs. This species commonly frequents the open woods and willow thickets while *virens* seems to keep to the heavier, thicker timber. (*Thompson-Seton*.) First observed in 1892 at Indian Head, Assa., on May 26th; a few were seen after this but they never became common; quite common at Banff, Rocky Mountains, in the summer of 1891; quite common and breeding in low woods at Revelstoke, B.C., Deer Park, Lower Arrow Lake and Pass Creek, Columbia River, B.C. Nests usually

placed on the limb of a spruce tree in the fork of the branch; tolerably common throughout British Columbia from Revelstoke westward on the line of the Canadian Pacific Railway to Sicamous, Spence's Bridge and Agassiz; common everywhere near the International Boundary between Trail and Cascade, B.C., in 1902. Seen at Chilliwack, B.C.; also at McGuire's ranch on the Chilliwack River, June, 1901; first seen near Victoria, Vancouver Island, May 19th, 1893; a common summer resident; saw them later in the season at Comox. (*Spencerborough*.) This species was found in the neighbourhood of Cumberland House, on the Saskatchewan, frequenting moist, shady woods by the banks of the rivers and lakes. It probably extends its summer range to the shores of Great Slave Lake. (*Richardson*.) One female secured July 1st, 1898, at Point Barrow, Alaska. (*Witmer Stone*.) North to Fort Simpson, on the Mackenzie River; rare. (*Ross*.) British Columbia. (*Lord*.) Not common on the coast but abundant in the interior; breeds. (*Streator*.) A common summer resident east and west of the Coast Range. (*Fannin*.) Common summer resident at Chilliwack. (*Brooks*.) Not abundant but represented in all localities visited in British Columbia. (*Rhoads*.) Specimens were taken at Haines Mission and Skagway, Lynn Canal. In the Yukon valley, from Windy Island, Lake Tagish to Little Salmon. It was more common at Miles Cañon than elsewhere on the Yukon, and here I found an unfinished nest which resembled that of *richardsonii*, in the fork of a dead poplar about 10 feet from the ground. It was also seen 12 miles above Circle City, Alaska. (*Bishop*.) This form has been named "Alaska Wood Pewee."

MUSEUM SPECIMENS.

Fourteen; two taken at Indian Head, Assa.; one at Banff, Rocky Mountains; one at Revelstoke, B.C.; one at Deer Park, Columbia River; one at Enderby, B.C.; one at Agassiz, B.C.; one at Trail, B.C., 1902; three at Chilliwack, B.C.; and two at Victoria, Vancouver Island.

CLXV. **EMPIDONAX** CABANIS. 1855.463. **Yellow-bellied Flycatcher.**

Empidonax flaviventris BAIRD. 1858.

Two received from Godthaab in Greenland in 1853. (*Arct. Man*.) Apparently a common summer migrant in Newfoundland.

(*Reeks.*) Two specimens were seen on the Humber River, Newfoundland, on August 15th, 1899. (*L. H. Porter.*) A common summer resident in Nova Scotia. (*Downs.*) Fairly common in dense woods at Wolfville, N.S., during the summer. (*H. Tufts.*) Found only at Tignish, Prince Edward Island; in small numbers. Observed in small numbers at Baddeck, Cape Breton Island. (*Dwight.*) A common summer resident in New Brunswick. (*Chamberlain.*) Rather common at Ellis Bay, Anticosti, about the edges of the woods. (*Brewster.*) I noticed this bird on the Magdalen Islands in 1897, and on the 13th June of that year one came on board the steamer I was on, when off the Gaspé coast. I have not seen it in Ontario. (*Rev. C. J. Young.*) Common at Lake Mistassini, and breeds. (*J. M. Macoun.*) Taken at Beauport; a common summer resident in Quebec. (*Dionne.*) A rather scarce summer resident in the Montreal district. I have not found a nest of this species here yet, but have shot several specimens of the bird. (*Windle.*) A rare summer resident in the Ottawa district; a nest of this species was taken at Chelsea, Que., in June, 1897. (*Ottawa Naturalist*, Vol. V.) A common and widely distributed species, breeding in Muskoka and Parry Sound districts. (*J. H. Fleming.*) I usually see one or more of this species at Toronto during the spring and fall migrations; while here they are very shy. On following one I usually find the bird making a series of quiet disappearances. (*J. Hughes-Samuel.*) Not observed to breed near London, Ont., but Dr. P. J. Scott found a nest near Southampton. I have not seen it in the Bruce peninsula. (*W. E. Saunders.*) Summer resident in woodlands in Manitoba. Duck Mountain, June 11th, 1884, shot a flycatcher that was continually uttering a note like "che-blick"; it was all over of a greenish colour, but yellow on the belly; it answers fairly well to the description of *flaviventris*, but is very like an Acadian shot yesterday; evidently the species is breeding here. (*Thompson-Seton.*) Only one specimen at the Grand Rapids of the Saskatchewan. (*Nutting.*)

BREEDING NOTES.—On May 23rd, 1893, at Oak Lake, Manitoba, found a nest of this species with four eggs. It was built on a mossy log three feet from the ground in a swampy thicket. (*W. Raine.*)

MUSEUM SPECIMENS.

One; taken at Ottawa, Ont., by the writer.

One set of four eggs taken at Black River, Nova Scotia, June 17th, 1901, by Mr. H. Tufts. Nest on the ground at the base of

a small alder, overhanging a small stream; built of grasses, roots and fibres.

464. **Western Flycatcher.**

Empidonax difficilis BAIRD 1858.

This species was found abundant at Agassiz, B.C., in May, 1889; a nest was taken that was placed on a rocky ledge in a cool retired place not far from a farm house; it was also common at Port Heney and Hastings, Burrard Inlet; taken at Chilliwack and McGuire's ranch, B.C., June, 1901; first seen at Victoria, Vancouver Island, April 26th, 1893; soon after they became common; they were also abundant at Nanaimo, Comox, Sooke and Stubbs Island, Barclay Sound. (*Spreadborough.*) Rather common but shy and difficult to secure; two males were taken at Cumsheewa Inlet, Queen Charlotte Islands. (*Osgood.*) A single specimen taken by Dr. Bean on June 5th, 1880, at Sitka is the only record of its capture in Alaska, but as others were seen it is doubtless a summer resident. (*Nelson.*) Common throughout the deep forests which border the streams near Sitka, Alaska. A female was taken June 30th, which contained an egg ready to be laid. (*Grinnell.*) Common in the coast region and more so in the interior; breeds. (*Streator.*) A common summer resident east and west of Coast Range. (*Fannin.*) Common summer resident at Chilliwack. (*Brooks.*) Mr. Streator says that this species while "common in the coast region is more so in the interior." Not only is this disproved by the specimens taken by him but by my own skins, all of which came from west of the Coast Range. (*Rhoads.*) Common at the Grand Rapids of the Saskatchewan in the dead timber of the muskeg. Three specimens secured. (*Nutting.*) Surely these specimens were *flaviventris*.

MUSEUM SPECIMENS

Twelve; one taken at Agassiz, B.C.; one at Port Heney, B.C.; three at Chilliwack, B.C.; and seven on Vancouver Island at Victoria, Nanaimo and Comox, all by Mr. Spreadborough.

One set of four eggs taken at Agassiz, May 14th, 1889, by Prof. Macoun. Nest placed on a ledge with rock overhanging it built of mosses and lined with hair and feathers.

466. **Traill's Flycatcher.***Empidonax traillii* (AUD.) BAIRD. 1858.

I found this species common at Pembina, like *minimus*, during the first week in June, but did not observe it later than the 9th of that month. (Coles.) Summer resident in woodlands, breeding freely in the northern part of the province of Manitoba. (Thompson-Seton.) A few were seen at Indian Head, Assa., on June 6th, 1892, after this they became common and nested in the woods at Deep Lake; not uncommon at Old Wives' Creek, Assa., in May, 1895; a pair was shot on the 25th of May; quite common at Banff, Rocky Mountains, and breeding freely in 1891; common at Revelstoke and Deer Park, B.C., in June, 1890; taken at Kamloops, B.C. in June, 1889, and at Sicamous, Enderby and Spence's Bridge; and also at Chilliwack and McGuire's ranch, B.C., June, 1901; in 1902 they were seen at Trail, B.C.; common on Vancouver Island in 1893, when specimens were taken. (Spreadborough.) North to Fort Resolution on Great Slave Lake; but rare. (Ross.) Little is known respecting the habits of this bird. It was first seen by us at Carlton House, on the Saskatchewan, on the 19th May, flitting about for a few days among low bushes on the banks of the river, after which it retired to the moist, shady woods lying to the north. (Richardson.) North to Fort Simpson on the Mackenzie River; rare. (Ross.) A single male of this wide-spread little species was brought to me from Nulato in the spring of 1878, and a second specimen was secured at St. Michael the same season. (Nelson.) A summer resident at Chilliwack. (Brooks.) Much more common in the interior than on the coast of British Columbia; breeds. We place all Mr. Rhoads' specimens collected at Ashcroft, Lake la Hache, Vernon and Lulu Island, though named by him *E. pusillus*, under this species. (Streater.) Very common at Chemawawin, Saskatchewan, especially in the trees bordering a slough, where they seemed to have excellent hunting. They perched on the lowest branches and bushes, and evidently lived on the insects flying over the water. None were secured at Grand Rapids, where it is replaced by *minimus*. (Nutting.)

MUSEUM SPECIMENS.

Twelve; one taken at Indian Head, Assa.; one at Old Wives' Creek, Assa.; two at Banff, Rocky Mountains; two at Kamloops,

B.C.; three at Chilliwack, B.C.; three at Victoria and Comox, Vancouver Island, all by Mr. Spreadborough.

466a. **Alder Flycatcher.**

Empidonax traillii alnorum BREWST. 1895.

Not a very common summer migrant in Newfoundland; frequents woods in the neighbourhood of houses. (*Reeks.*) A rather common summer resident in Nova Scotia. (*Downs.*) Common in margins of woods at Baddeck and Margaree, Cape Breton Island, July, 1898; one taken at Mount Stewart, Prince Edward Island, July 11th, 1888. (*Macoun.*) A few seen at Tignish, Prince Edward Island, in their favourite haunts, the alders. (*Dwight.*) An uncommon summer resident in New Brunswick. (*Chamberlain.*) A tolerably common summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Taken at Beauport; a summer resident in Quebec. (*Dionne.*) A scarce summer resident in the Montreal district; breeds in Mount Royal Park, where I have found their nests with eggs from June 19th to July 30th, for several years past. (*Wintle.*) A common summer resident in the Ottawa district. (*Ottawa Naturalist*, Vol. V.) Rather rare near London, but more common to the north and east. (*W. E. Saunders.*) Not common in Algonquin Park, Ont.; only a few seen on the Madawaska River below C  che Lake. (*Spreadborough.*) I took a male at Emsdale in Muskoka, on May 29th, 1899. Mr. Kay has taken the nest of this species at Port Sydney, in the same district. (*J. H. Fleming.*) One specimen taken and others seen at Lesser Slave River, Athabasca, May 23rd, 1888. (*J. M. Macoun.*) First seen May 26th, 1897, at Edmonton, Alta.; common by June 2nd. It is always found in the clumps of willow and alder and never in heavy timber. (*Spreadborough.*) Flycatchers referred to *alnorum*, were several times observed by us at Norway House, Keewatin, but we were unable to secure one. (*Prebles.*) We first found this species at Fort Selkirk, where the Pelly and Lewes unite to form the Yukon, in Lat. 62° 50', and hardly lost it again until we reached Circle city; later I heard one 15 miles below Fort Yukon, Alaska, August 21st, 1899. (*Bishop.*)

BREEDING NOTES.—The variety recently called the "alder flycatcher" is the species usually met with along the St. Lawrence and northward. I would observe that this name is very appropriate. I have commonly met with the bird in moist, low situa-

tions, where alder, willow and *Spiraea* abound. The nest I have seen several times; three near Renfrew, Ont., that I found were two or three feet above the ground; one in a wild currant bush, another in the thick bushy part of a willow, and the third in *Spiraea*. Also near Lansdowne, Ont., I found the nest in *Spiraea* in an identical locality, the middle of June. The eggs are three or four, and are distinctly spotted with brick red. The bird, when near its nest, is wary and hard to observe. (*Rev. C. J. Young*.) Breeds in Mount Royal Park, where I have found their nests with eggs from June 19th to July 30th for several years past. This flycatcher is a very shy bird to approach when on its nest during the term of laying the eggs, but will sit close while hatching them. I have always found their nests built in a thin thorn bush or light undergrowth wood, from a few inches to about two feet above the ground, and generally within sight from a foot-path on the mountain. Observed here from May 24th to July 30th. I think this species migrates south in the month of August as I never met with it in the autumn. (*Wintle*.)

MUSEUM SPECIMENS.

Two; one taken at Ottawa in May, 1888, by Prof. Macoun; another by J. M. Macoun near Little Slave River, Athabasca, and labelled "*trillii* approaching *alnorum*" is placed here.

Two sets of four eggs each taken at Ottawa, one by Dr. James Fletcher, May 24th, 1889, the other by Mr. A. J. Kingston.

467. **Least Flycatcher.**

Empidonax minimus BAIRD. 1858.

Audubon, Vol. I., p. 237, found it nesting in Labrador; obtained by Drexler at Moose Factory, James Bay, August, 1860. (*Packard*.) A rare summer migrant in Newfoundland. (*Reeks*.) Common along Moose River to James Bay at Moose Factory, June, 1896. (*Spreadborough*.) A common summer migrant in Nova Scotia. (*Downs*.) Not uncommon at Baddeck, Cape Breton Island. (*F. H. Allen*.) Union Road, Prince Edward Island, July 21st, 1888. (*Macoun*.) A cheerful series of "che-bies" greeted me one morning at Souris, P.E.I.; no others were seen. (*Dwight*.) A rare summer resident near St. John, N.B. (*Chamberlain*.) Common summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore*.) Common in the Restigouche valley, N.B. (*Brit-*

tain & Cox.) Taken at Godbout River; a rather rare summer migrant at Quebec. (*Dionne.*) A scarce summer resident in the Montreal district; breeds on the island of Montreal. (*Windle.*) A common summer resident in the Ottawa district. (*Ottawa Naturalist*, Vol. V.) The most abundant of the small flycatchers in the Muskoka and Parry Sound districts. (*J. H. Fleming.*) Very abundant everywhere in Algonquin Park, Ont., July, 1900. (*Spreadborough.*) A nest containing well-incubated eggs was collected near the south end of Oxford Lake, Keewatin, on the morning of June 30th, the female bird was taken with the eggs. (*Prebles.*)

Very abundant at Pembina and west to Turtle Mountain, in Lat. 49°, beyond which it was not seen. (*Cones.*) A very abundant summer resident of open groves extending its range throughout the wooded part of the province of Manitoba. (*Thompson-Seton.*) Common at the Grand Rapids of the Saskatchewan. (*Nutting.*) First seen at Indian Head, Assa., May 27th, 1892, later they became fairly common and bred in numbers in the vicinity of Deep Lake; collected at Medicine Hat and Crane Lake, Assa., in June, 1894; abundant on Old Wives' Creek, Assa., at its mouth, May 24th, 1895; this species was seen all the way up Old Wives' Creek and at Wood Mountain Post; a small flycatcher was seen at Farwell Creek, Cypress Hills, Assa., which may have been this species; taken at Canmore, Alta., within the Rocky Mountains, but replaced at Banff by Wright's flycatcher. First seen at Edmonton, Alta., May 12th, 1897, common next day; in the foothills southwest of Calgary common in July. (*Spreadborough.*) North to Fort Simpson on the Mackenzie; common. (*Ross.*)

BREEDING NOTES.—A bird almost resembling the last, but a trifle smaller. It breeds commonly in the counties of Leeds and Renfrew, selecting a very different locality from *traillii* for its nest. It is a familiar bird, frequenting orchards and the vicinity of houses, as well as the second growth woods. The nests I have seen resemble a redstart's and were built in the crotch of a maple and of apple trees. They contained four yellowish white eggs which were laid about the end of May, about two weeks earlier than the last. (*Rev. C. J. Young.*) I found it common on my arrival, the 1st of June, and during that month secured a large series of specimens, including many nests and eggs, the latter not

until the middle of the month. The usual site of the nest is the upright crotch formed by three or more diverging twigs of some sapling or stout bush, usually ten or twelve feet from the ground. One nest that I took I could reach standing on the ground, but another was in a slender elm tree some 40 feet high, on a swaying bough, but in a crotch of upright twigs as usual. The female during incubation is as close a sitter as some of the ground sparrows. In one instance I came within an arm's length before the bird flew, and then she merely fluttered out of reach and stood uttering a disconsolate note. The nest is usually let deeply down into the crotch and bears the impress of the twigs. It is composed of intertwined strips of fine fibrous inner bark and decomposed weedy substances, matted with a great quantity of soft plant-down, and finished with a lining of a few horse hairs or fine grasses, making a firm, warm fabric, with a smooth, even brim about $2\frac{1}{2}$ inches across outside and less than 2 inches deep; general shape tends somewhat to be conical, but much depends upon the site of the nest. The walls are thin, sometimes barely coherent along the track of the supporting twigs. The cavity is large for the size of the nest, scarcely or not contracted at the top; and about as wide as deep. In six instances I found not more than four eggs, which seems to be the full complement. These are pure white in colour, of ordinary shape (but variable in this respect), and measure about two-thirds of an inch in length by one-half in breadth. Extremes of length noted were 0.59 and 0.68; the diameter is less variable. (*Cones.*) Nests every year at Kew Beach, Toronto; also breeds commonly in Manitoba and Assiniboia. (*W. Raine.*) Breeds in the vicinity of Ottawa. Builds a small, neat, compact, deep-cupped nest in upright crotch of tree; nest is composed of fine fibrous inner bark, and the decomposing outer substance of various weeds, lined with a soft plant down, horse hair and fine grass tops. Eggs three or four, pure white. (*G. R. White.*) June 2nd, 1897, found two nests at Edmonton, Alta., one in the fork of a small poplar about two feet from the ground. Nest very compact, just like a yellow warbler's nest, four eggs nearly fresh. The other was in a larger poplar about 25 feet from the ground; nest same as the first; eggs nearly fresh; next day found two more nests; one in a willow about seven feet from the ground. The other was in a balsam poplar about two feet from the ground. Nest very compact, composed chiefly of willow down lined with a little dried grass.

I have found nests all the way from four to thirty feet from the ground. (*Spreadborough.*)

MUSEUM SPECIMENS.

Eight; two taken in Algonquin Park, Ont.; one at Indian Head, Assa.; three at Old Wives' Creek, Assa.; one at Medicine Hat, Assa.; and one at Canmore within the Rocky Mountains, all taken by Mr. Spreadborough.

Five sets of eggs, three with four eggs each and two with three; all taken the first ten days of June, 1897, at Edmonton, Alta., by Mr. Spreadborough.

468. **Hammond's Flycatcher.**

Empidonax hammondi (XANTUS) BAIRD. 1858.

Reference is made to some eggs of this flycatcher, obtained from "Anderson River" in Vol. II. of the Proc. of the U.S. Nat. Mus. by the late Dr. Brewer of Boston, which I conclude were sent to the Smithsonian by me. (*Macfarlane.*) Rather common; specimens from Ashcroft, Ducks, Mount Lehman, and New Westminster, B.C. (*Streator.*) Chiefly on the mainland; east and west of Coast Range; common at New Westminster, B.C. (*Fannin.*) This species which appears to be the western representative of *minimus* was only found in the Rocky Mountains where a single specimen was secured in August, 1874. (*Coues.*) Taken on Lee's Creek, near Cardston, southern Alberta, and at Waterton Lake, where Dr. Coues obtained his specimen; common at Trail, B.C., near the International Boundary in the summer of 1902. June 1st found a nest in a hemlock tree, out on a slender branch about 16 feet from the ground. June 12th found another nest in a small cedar tree about eight feet from the ground. Not uncommon on Chilliwack River, B.C., in June, 1901. Saw one specimen which I took to be this species on Mount Benson, near Nanaimo, Vancouver Island, July 10th, 1893. (*Spreadborough.*) Of uniform distribution on mainland and islands, B.C., breeding wherever found. (*Rhoads.*) I have the nest with three eggs and the parent bird that were collected for me by Mr. Wenman at the base of Moberly Peak, Rocky Mountains. The nest was built six feet from the ground on a branch of a tree and the eggs are creamy white, they were collected May 31st, 1902. (*W. Raine.*) We saw

several of this species at Skagway and collected three. I took one at Glacier, June 8th, and another on a hill above Caribou Crossing, B.C.; after this we did not meet with this bird until about fifteen miles above Selwyn River where Osgood shot a young one, July 29th. From that point to Charlie Creek it was almost equally common with *alnorum*, frequenting the same localities, but after passing Charlie Creek we saw no more of it. (*Bishop.*)

MUSEUM SPECIMENS.

Seven; five taken at Trail, B.C., and two at Chilliwack, B.C., all by Mr. Spreadborough.

One set of eggs taken at Trail, B.C., June 14th, 1902, by Mr. Spreadborough.

489. **Wright's Flycatcher.**

Empidonax wrightii BAIRD. 1858.

Only two taken; a rare migrant at Chilliwack, B.C. (*Brooks.*) Instead of *traillii*, which I expected to find in the Rocky Mountains, this species was taken in that locality. Three specimens taken during the latter part of August, 1874, on the International Boundary in Lat. 49°. The bird doubtless breeds in this region, which is the northernmost point by far at which it has been observed. (*Cones.*)

This species was mixed with *minimus* at Canmore, within the Rocky Mountains, but although a number of specimens were taken at Banff, twenty miles further west, *minimus* was not taken in the summer of 1891. The species is apparently common in the mountains, as it was very abundant at Revelstoke, B.C., on the Columbia River, and breeding there and at Deer Park and Robson, on Arrow Lake, and below it; it was not uncommon at Sicamous, B.C., in July, 1889; and specimens were taken at Hastings, Burrard Inlet, in April, 1889; specimens taken at Spence's Bridge, B.C., in May and June, 1889. (*Macoun.*)

MUSEUM SPECIMENS.

Fourteen; one taken at Canmore, three at Banff, Rocky Mountains; five at Revelstoke, B.C.; one at Deer Park, B.C.; one at Sicamous, B.C.; two at Spence's Bridge, B.C.; one at Hastings, Burrard Inlet; all by Mr. Spreadborough.

FAMILY XXXIX. **ALAUDIDÆ.** LARKS.CLXVI. **ALAUDA** LINNÆUS. 1758.473. **Skylark.***Alda arvensis* LINN. 1758.Accidental in Greenland and Bermuda. (*A. O. U. Check-List.*)CLXVII. **OTOCORIS** BONAPARTE. 1838.474. **Horned Lark.***Otocoris alpestris* (LINN.) BONAP. 1838.

One shot at Godthaab in October, 1835, but known before to occur on the other side of Davis Strait at Cape Wilson, 10th July, 1822. (*Arct. Man.*) Common summer resident in Labrador. Breeds at the mouth of the Koksoak River and at Rigolet. (*Packard.*) Common and breeding on the rocky islands of James Bay from Moose Factory to Richmond Gulf: not observed in the interior of Labrador between Richmond Gulf and Ungava Bay in 1896. (*Spreadborough.*) Greenland, Newfoundland, Labrador and Hudson Bay, southward in winter into the United States. Our bird breeds far north of the United States, about the shores of Hudson Bay, Labrador and Newfoundland. Breeding birds have been examined from Fort Chimo and Davis Inlet, Labrador; Penguin Island, Cape St. Mary, and Canada Bay, Newfoundland; Moose Fort, James Bay; non-breeding from Toronto and Rat Portage, Lake of the Woods, Ontario; also from Manitoba. (*Dwight.*) Common during the spring and autumn migrations, in Nova Scotia. (*Downs.*) A winter resident at St. John, New Brunswick. (*Chamberlain.*) Taken at Beauport; a migrant in Quebec. (*Dionne.*) A transient visitant at Montreal; scarce. I shot five specimens of this species out of about a dozen found feeding on the river ice-roads in front of the city, April 8th, 1887, but since that time have not met with them, in the spring of the year; in the autumn only from Oct. 20—26th. (*Windle.*) The horned larks of the Ottawa district were for the first time satisfactorily determined and distinguished in the spring of 1890. This species arrived April 19th and remained together in flocks till May 25th, when it departed; it was again present in the fall from September 26th to October 28th, (*Ottawa Naturalist*, Vol. V.) Formerly common at Toronto; Mr. Lamb of Toronto has a specimen taken at Gravenhurst in Muskoka district. (*J. H. Flem-*

ing.) The typical horned lark is commonly met with along the St. Lawrence below Kingston in the winter and spring, and I think in the month of September. (*Rev. C. J. Young.*) Specimens of the true *alpestris* were taken by myself at Rat Portage and at Carberry in the fall. (*Thompson-Seton.*) Exceeding rare; two specimens taken by Mr. J. Keays in December, 1899, are intermediate between this species and the var. *leucolæma*. (*W. E. Saunders.*) Abundant everywhere on the bleakest and most exposed hillsides in northeastern Labrador. So far as I could determine, all the horned larks observed belonged to this race. (*Bigelow.*) Some winters large flocks of shore larks visit Kew Beach, Toronto, and a few pairs occasionally remain and nest here early in April, but of course this is exceptional as the summer home of this bird is further north around the Gulf of St. Lawrence and Labrador. Toronto, March 4th, 1900, as I sat writing at my desk flocks of shore larks kept passing in front of the window, and some settling on the road in front of my house. I put a cartridge in my gun and walking to the front door shot three birds with one discharge. Few can boast of shooting horned larks from the doorway of their homes. April 8th, 1900, Mr. Winton Thompson of Kew Beach took me to a nest of the horned lark he had found, it contained three eggs and the bird had begun to sit although the ground had patches of snow around the nest and the nights were cold. In order to satisfy myself this was the nest of the true *alpestris* I got up early next morning and shot the parent, which proved to be *alpestris* and not *praticola*, the eggs like the bird are one-third larger than those of *praticola*. Port Hope, Ontario, March 29th, 1900, Mr. Meeking found a nest containing four eggs of this species, and on April 13th he found another set of three and on April 28th, 1900, he found another set of four eggs at the same place. These sets collected at Port Hope are now in my collection and the eggs from all the nests average larger than those of the prairie horned lark collected by me on Toronto Island and in Manitoba. (*W. Raine.*) We have one specimen of the species taken at Ottawa, May 15th, 1890, by W. E. Saunders. A specimen taken at Resolution Island, near Davis Strait in June, 1885, by Dr. R. Bell has some characters of *leucolæma* but is placed here.

MUSEUM SPECIMENS.

Two undoubted specimens of this species taken on Hudson Bay by Mr. A. P. Low; and the two mentioned immediately above.

Three sets of eggs. One of three taken at Great Whale River, James Bay, June, 1899, by Mr. A. P. Low, one of three taken on an island in James Bay, June 18th, 1896, by Mr. Spreadborough, and one of four taken at Cape Prince of Wales, Hudson Strait, June, 1885, by Mr. F. F. Payne.

474a. **Pallid Horned Lark.**

Otocoris alpestris leucolæma (COUES) STEJN. 1882.

Alaska and western British America, southward in winter into the United States. A few breeding birds from the Saskatchewan and Great Slave Lake region, though tinged with yellow on the chin, are, on account of size and colours somewhat paler than *alpestris* referable to *leucolæma*; so, too, are large dark birds with white eyebrows and pale yellow chins found in winter in the upper Mississippi valley, coming as they doubtless do from an intermediate region between Hudson's Bay and Alaska. Breeding birds of these two races are few and limited mainly to those taken on Government expeditions; consequently I do not draw the lines on the map as closely together as with some of the other races better defined. Two young, in first plumage, taken on the Arctic coast, east of the Anderson River, may be referred to this race. While they are not as black and white as might be expected in Alaskan birds, they lack the general yellowishness of young *alpestris* from Newfoundland. In winter *leucolæma* is found as far south as the middle of the western United States, mostly east of the Sierra Nevada mountains. Northwest coast specimens indicate that a small-sized *leucolæma* may breed in the mountains not far north of the United States boundary, though such birds may generally be referred to *merrilli*. A male in autumn plumage, taken August 26th at Chief Mt. Lake, on our northern boundary, Long. 114° W. suggests the possibility of this form breeding also on the mountains at that point, or not far to the north. It is not reported from Pt. Barrow, is rare at St. Michael, Alaska, and is probably an interior race. Breeding birds have been examined from Fort Yukon and St. Michael, Alaska; Arctic Coast east of Fort Anderson, also Horton River and Franklin Bay; from Fort Reliance, Fort Resolution and Big Island, Great Slave Lake; also from Saskatchewan region. Non-breeding from Chilliwick, B.C. (*Dwight*.) This very handsome lark arrives in the Northwest Territories along with the Lapland bunting, with which it

associates. It retires to the marshy and eastern wooded districts to breed, extending its range to the shores of the Arctic Sea. (*Richardson.*) Throughout Alaska this species appears to be very rare. Two specimens were taken in the vicinity of St. Michael during my residence there, and three were secured on the upper Yukon. All these were young males. It is much more common on the upper Yukon in spring and summer than along the shores of Behring Sea, where it can only be counted a very rare straggler. (*Nelson.*) A single specimen of this bird was brought to me by a native who said he had just killed it at Egg Island, a few miles from the village of St. Michael. (*Turner.*) East of and including the Coast Range; I have taken it on the summit. (*Fannin.*) Common spring and autumn migrant at Chilliwack, B.C. (*Brooks.*) This species arrives before the first of April at Indian Head, Assa., but in what numbers it is hard to determine as the form that remains to breed may be *praticola* or *arenicola* or even *hoyti*. The specimen in our collection was shot on April 12th, 1892, and on the same day I took a specimen of *arenicola*; on April 19th 1890, another specimen was taken at Revelstoke, B.C., where they appeared to be common; in April, 1891, specimens were taken at Banff, Rocky Mountains. No specimens that proved to be this form were taken in the autumn; four specimens taken at Huntingdon on the boundary between Washington and British Columbia, in September, 1901, proved to be this form. It is more than probable that Dr. Dwight is correct when he says that this may breed on the mountains north of the United States boundary. (*Spreadborough.*) A careful reading of Mr. Thompson-Seton's article on the horned lark in his "Birds of Manitoba" shows that the winter bird seen in flocks is undoubtedly this form. It is very probable that *praticola* is a later arrival. Nash says "that at Portage la Prairie *praticola* is a spring and fall visitant; stays nearly all winter; disappears and reappears at intervals; arrives about March 20th, reappears in August, and departs in October." Now to me this is exactly what a bird breeding on the "barren grounds" would do, so I conclude that this form is the one mentioned by Nash and included in *praticola* by Thompson-Seton. Two darker coloured specimens taken at Indian Head, Assa., in September, 1891, and named *hoyti* by Bishop are placed here. This is very likely the form that Dr. R. Bell found breeding at York Factory and Fort Churchill on Hudson Bay. (*Macoun.*) On May 29th, 1893, at Rush Lake, Assiniboia,

I found three nests containing eggs of this species. The nests were built in hollows in the ground, the brim of the nest flush with the surrounding soil. Each nest contained four eggs similar to those of the prairie horned lark. I secured two birds which are easily distinguished from the prairie horned lark by their paler form. (*W. Raine.*) I believe this form was *arenicola*, as I have found it breeding everywhere on the prairie. (*Macoun.*)

BREEDING NOTES.—Nine nests of this lark were received at Fort Anderson—a few of them from the Esquimaux, and the others were collected by us in "the barrens" and on the coast of Franklin Bay. The nest was usually composed of fine hay neatly disposed and lined with deer hair. Several of the parent birds were secured by snares placed thereon. (*Macfarlane.*)

MUSEUM SPECIMENS.

Six; one taken at Indian Head, Assa., one at Revelstoke, B.C., and four at Huntington, on the International Boundary, in the Fraser River valley, all by Mr. Spreadborough.

One set of three eggs taken June 9th, 1900, at Artillery Lake, northeast of Great Slave Lake, by Bishop Lofthouse.

474b. **Prairie Horned Lark.**

Otocoris alpestris praticola HENSH. 1884.

This bird is a miniature *leucolæma*, somewhat darker and with a pale yellow chin which is seldom bright, and is often white. Autumn birds seem to show more linear spots on the breast than do the other forms, but this is not a constant feature. It seems to have gradually extended its range eastward as the woods have disappeared, and we can see why it should be nearer to *leucolæma* than to *alpestris*. However, as we go westward, we find a direct gradation into *arenicola* and this race passes directly into *leucolæma*. Now *leucolæma* passes into *alpestris*, and somewhere in the Saskatchewan or Winnipeg regions we shall find, I venture to say, breeding birds that might be referred to any one of these four forms. Breeding birds have been examined from Toronto, Peel Co., and Rat Portage, Ont.; Carberry, Man. (*Dwight.*)

A specimen of this form was shot at Chateau Bay, southern Labrador, on July 14th, 1891, which was possibly a straggler, but may indicate that this form is a regular summer visitant to all eastern Quebec and the Straits of Belle Isle. (*Norton.*) A com-

mon summer resident in the Montreal district. They have been found breeding here before the winter's snow has melted off the ground; they arrive in February and leave in November. (*Windle.*) Occasional at Quebec. (*Dionne.*) A common summer resident in the Ottawa district; it arrives before the end of February and remains all summer to breed, and leaves about the beginning of November. (*Ottawa Naturalist*, Vol. V.) An abundant, breeding, summer resident in the Muskoka and Parry Sound districts. The date of its first appearance at Port Sydney, as given by Mr. Kay, was 1887. (*J. H. Fleming.*) Summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Reaching us during the early days of February these birds soon become very abundant. On 20th February, 1900, they were especially so along the lake shore, and wherever a patch of weeds was in evidence above the snow dozens of the birds were hurrying to and fro clearing up all the seeds and enlivening the scene with merry little snatches of song. (*J. Hughes-Samuel.*)

This is a common summer resident in Manitoba, breeding freely on the open prairie. (*Thompson-Seton.*) This form becomes very abundant early in May at Indian Head, Assa. On the 9th of that month took a nest with three eggs; by June 2nd, young were able to fly. I believe they breed several times in a season. (*Spreadborough.*)

BREEDING NOTES.—This sub-species arrives in February and March, and continues all the summer. Early in February this year (1901) I saw a number of horned larks on the ice between Kingston and Wolfe Island; they are often in company with snow buntings; the first prairie horned larks I saw on Feb. 17th, (3), and one on Feb. 28th near the head of Wolfe Island. They are tamer and more familiar birds than the northern variety, and are now breeding commonly in Ontario. In the townships of Lansdowne and Escott, and around Kingston, they nest every year. I have found the nest with eggs, in which incubation has begun, as early as March 29th, and just hatching on April 23rd, 1895. The usual time for laying is the first week in April, before the snow has all melted in the spring. I have a record of a nest on Wolfe Island with four eggs, on March 8th, clipped from a newspaper, and frequently the young birds are hatched by the middle of April. Three eggs is the commonest number, but I have found four three times, and five once, April 13th, 1899. A com-

paratively few years ago this bird was unknown as breeding in eastern Ontario. (*Rev. C. J. Young.*) On May 12th, 1882, at camp, eight miles south of Brandon, midway between our tent and the fire ten feet away, I started a small bird from its nest. It ran away very reluctantly, and continued wistfully close at hand, running about among the tufts of grass in the glare of the fire, returning each time as soon as it dared. At gray dawn I found her on the nest again; she slowly walked away when I approached to rekindle the fire, but returned almost immediately with her mate; and, now, for the first time, I saw them plainly. They were a pair of shore larks. Encouraged, no doubt, by the presence of her mate, she once more crept to her nest and took up her position on the eggs, although I was but five feet off. Frying our bacon over a brisk fire, I was very careful to avoid hurting the birds or their home; and breakfast being over, travellers, tent, fire and horses all went off and left them to discharge their duties in peace. The nest contained three brown eggs; it was sunken in the ground, and was made of grass and fibre, and lined with two or three large feathers. (*Thompson-Seton.*) Common resident from January to October; usually rare in November and December; an exceedingly early breeder, eggs having been taken in March, and on April 25th, 1900, a brood of young left the nest able to fly. Raises two or probably three broods in a season. (*W. E. Saunders.*) The bird nests on Toronto Island and on Toronto Sandbar at Ashbridge Bay, seldom having eggs before the middle of May, as the instances when shore larks nests have been found here at the end of March and first week of April, while snow was on the ground, have proved to be the eggs of *alpestris* and not *praticola*. This variety of horned lark breeds commonly in Manitoba. In northwestern Assiniboia and Alberta it is replaced by the pallid horned lark. (*W. Raine.*) At Ottawa this bird builds in a shallow hole in the ground. The nest is composed of grass and lined with fine grass, horse-hair and feathers. Eggs four or five. Grayish white, marked with spots of brownish purple. (*G. R. White.*)

MUSEUM SPECIMENS.

Thirty-three; twenty-two of these were taken at Ottawa by Mr. F. A. Saunders; three at Lorne Park, Toronto, by Mr. E. Thompson-Seton; four others at Bracebridge, Ont., and one at Indian Head, Assa., by Mr. Spreadborough.

One set of three eggs taken May 14th, 1889, on the Experimental Farm, Ottawa, by Dr. James Fletcher.

Two specimens taken at Indian Head, Assa., and named *hoyti*, are referred here for the present.

474c. **Desert Horned Lark.**

Otocoris alpestris arenicola HENSH. 1884.

This is undoubtedly the form named by Dr. Coues *Eremophila alpestris leucolæma* in his article on "Birds of Dakota and Montana" and why his name has been attached to the northern bird is more than I can understand. He found this form breeding all along the boundary across the whole prairie region. In the writer's trip across the prairie this form was found everywhere on the prairie south of Lat. 50° from the 100th meridian to the 114th at the base of the Rocky Mountains. Our northern specimens are three from Indian Head, Assa., taken between April 7th and 12th, 1892; four others from Medicine Hat, taken between April 6th and May 2nd, 1894. On the prairie south of the line of the Canadian Pacific Railway this species with McCown's bunting and the chestnut collared bunting were extremely common and constantly flocked together. (*McCown*.)

BREEDING NOTES.—The horned lark is one of the species which, in this latitude, usually rears at least two broods each season—a fact which in part accounts for the preponderance of individuals over those of the species with which they are associated. I have already adverted to the extremely early nesting-time which has been ascertained and have only to add that the period of reproduction is protracted through July. I have observed young birds on the wing in June, and found fresh eggs in the nest during the latter half of July. In fact, all through the summer months the troops of larks everywhere to be seen consist of old birds mixed with the young in all stages of growth. The great flocks, however, are not usually made up until the end of the summer, when all the young are full grown, and the parents having concluded the business of rearing their young, have changed their plumage. The young of the first brood soon lose the peculiar speckled plumage with which they are at first covered; the later ones change about the time the feathers of the old birds are being renewed. The agreeable warbling song is scarcely to be heard after June. The nest of the horned lark may be stumbled upon anywhere on

the open prairie. It is a slight affair,—merely a shallow depression in the ground, lined with a few dried grass stems. The eggs are four or five in number, measuring nearly an inch in length by about three-fifths in breadth; they are very variable in contour. The colour is well adapted to concealment in the gray-brown nest, being nearly the colour of the withered materials upon which they rest, thickly and uniformly dotted with light brown. The eggs and young birds, like those of other small species nesting on the ground in this region, often become the prey of the foxes, badgers and weasels, if not also of the gophers. (*Cones.*) Numbers of nests were obtained and examined in a wagon trip of 500 miles in 1895 and all were of the same character. The nest was always a small hole in the ground lined with dried grass and contained from two to four eggs. The latter seemed to be the usual number. (*Macoun.*)

MUSEUM SPECIMENS.

Nine; three taken at Indian Head, Assa.; four at Medicine Hat, Assa., and two near Wood Mountain, Assa., by Mr. Spreadborough.

One set of four eggs taken near Frenchman's River, Assa., June 22nd, 1895, by Prof. Macoun.

474g. **Streaked Horned Lark.**

Otocoris alpestris strigata HENSH. 1884.

British Columbia(?) (*Dwight.*) West of Coast Range; at Port Simpson, by W. B. Anderson; also at Burrard Inlet. (*Finnin.*) Spring and autumn migrant through the valley of the lower Fraser; breeds on mountain tops above timber line. (*Brooks.*)

474i. **Dusky Horned Lark.**

Otocoris alpestris merrilli DWIGHT. 1890.

Specimens of this form in breeding plumage have been examined from Ashcroft and Kamloops, B.C.; non-breeding from Chilliwack. (*Dwight.*) Observed only in the interior at favourable localities. A few pairs were found on a mountain near Ashcroft, B.C., in July and were doubtless breeding. (*Streator.*) This form was found breeding at Spence's Bridge and ten miles south of Kamloops, B.C., by some alkali ponds in June, 1889, one specimen, a young male, was taken June 24th at Kamloops, B.C. (*Spreadborough.*) Taken at Chilliwack, B.C. (*Brooks.*)

MUSEUM SPECIMEN.

One young specimen, taken at Kamloops, B.C., June 24th, 1889, by Mr. Spreadborough.

NOTE ON GENUS OTOCORIS.

My notes on this genus were written before I had seen Mr. Oberholser's "Review of the Larks of the genus *Otocoris*," published in Vol. XXIV. of the Proceedings of the U. S. National Museum. Our specimens were sent to Mr. Frank Chapman of the American Museum of Natural History, New York for determination. Mr. Chapman followed Dr. Dwight's arrangement as published in Vol. VII. of *The Auk*, and I have allowed my notes to stand as originally written. Below, however, I give Mr. Oberholser's arrangement with a few added notes to make my own work clearer.

Otocoris alpestris LINN. = *O. alpestris alpestris* (LINN.) OBER.

Geographical distribution. In summer, northeastern British America, west to Hudson Bay, from Newfoundland, Labrador and the head of James Bay northward; accidental in Greenland. In winter west to Manitoba.

Otocoris alpestris leucolæma, in part. = *O. alpestris hoyti* BISHOP.

Geographical distribution. In summer, British America from the west shore of Hudson Bay to the valley of the Mackenzie River, north to the Arctic coast, south to Lake Athabasca.

We have two specimens named as above taken at Indian Head, Assa., in April, 1892, by Mr. Spreadborough. Mr. Prebles took this form from 50 miles north of York Factory to 50 miles south of Cape Eskimo on the west coast of Hudson Bay. Mr. Oberholser has examined specimens from the following places in the Dominion of Canada: Calgary, Alberta; Indian Head, Assiniboia; St. Louis, Saskatchewan; Fort Resolution, Great Slave Lake; Arctic coast, east of Fort Anderson; also Franklin Bay, Arctic coast; Big Island, Great Slave Lake; Depot Island; Fort Chipewyan, Lake Athabasca; Grand Rapids of the Saskatchewan; Fort Churchill, and Cape Eskimo, Northwest Territories.

O. alpestris leucolæma DWIGHT, in part. = *Otocoris alpestris arctica* OBERHOLSER.

Geographical distribution. In summer, Alaska (chiefly in interior), with the valley of the upper Yukon River; in winter

south to Oregon, Utah and Montana. Type locality, Fort Reliance, Yukon district, specimens taken at Fort Yukon and St. Michael, Alaska; Chilliwack, Okanagan, Sumas Prairie, Twin Buttes Mt., Ashnola River, and Osoyoos, British Columbia.

Otocoris alpestris enthymia. OBERHOLSER.

Type locality, St. Louis, Saskatchewan.

Geographical distribution: In summer, Saskatchewan, Assiniboia, with possibly southwestern Manitoba. Breeding specimens from Indian Head, Assiniboia; St. Louis, Saskatchewan.

O. alpestris arenicola DWIGHT. = *Otocoris alpestris leucolæma* COUES.

Geographical distribution: In summer, north to the eastern side of the Rocky Mountains in Alberta. Specimens examined by Oberholser from Medicine Hat, Assiniboia; and Calgary, Alberta.

Otocoris alpestris praticola HENSHAW.

Geographical distribution: In summer, southern Canada, from Manitoba to the north shore of the Gulf of St. Lawrence. Specimens examined by Oberholser from Chateau Bay, Gulf of St. Lawrence and Gatineau Point, Quebec; Ottawa, Lorne Park, Peel County, Kingston, Toronto, Windsor and Bracebridge, Ont.; Carberry, Rat Portage, Boggy Creek, Big Plain, Manitoba.

Otocoris alpestris merrilli DWIGHT.

Geographical distribution: In summer, southern British Columbia, east of the Coast Range. Specimens examined by Oberholser from Chilliwack, Kamloops, Osoyoos, Ashcroft and Sumas Lake, British Columbia.

FAMILY XL. **CORVIDÆ**. CROWS, JAYS, MAGPIES.

CLXVIII. **PICA** BRISSON. 1760.

475. **American Magpie.**

Pica pica hudsonica (SAB.) JORDAN. 1884.

An accidental visitant at Montreal. A magpie was shot at Chambly, twenty miles southeast of Montreal, about the year 1883. (Wintle.) I have known several to be taken at Kingston, Ont.; occurs regularly and is probably a resident along the east coast of Lake Superior; one was seen at Port Sydney, Muskoka district, by Mr. Kay, in the summer of 1898. (*J. H. Fleming.*) On March

12th, 1898, Charles M. Clarke of Kingston, Ont., observed a magpie near Odessa, and since that date two specimens have been shot and sent to the taxidermist. (*C. H. Clarke, M.D., in The Auk, Vol. XV., 274.*) No magpies were seen in the Red River region, where, if occurring at all, I doubt their presence as far east as the river itself. During the second season, however, they were very frequently noticed at various points on the Upper Missouri and Milk rivers, and thence to the Rocky Mountains. On the 1st of July newly fledged birds were taken near the mouth of Milk River, and at the Sweetgrass Hills, during the first week in August, imperfectly plumaged individuals, a little over a foot long, were noticed. (*Coues.*) This species was formerly quite common in most parts of Manitoba and eastern Assiniboia, but of late years have only been noted as stragglers. (*Thompson-Seton.*) This bird is plentiful on the interior prairies of British America, but only a few stray individuals pass eastward of Lake Winnipeg. It does not entirely quit the Saskatchewan plains even in winter, but is much more frequent in summer. (*Richardson.*) On west side of mountains north of Lewes and Pelly rivers. Not seen in the Mackenzie River valley. (*Ross.*) This species is an abundant resident along that portion of the coast-line extending from the Shumigan Islands east and south. It is abundant on Kadiak Island and in the vicinity of Sitka. North of the Alaskan mountains it is comparatively rare and has been taken at Fort Reliance on the upper Yukon almost on the Arctic circle. (*Nelson.*) Several traders from the upper Yukon district reported this species to be not rare in the neighbourhood of Fort Yukon and rather more common farther up the river. (*Turner.*) Found common everywhere; breeds about Ashcroft, B.C. (*Streator.*) An abundant resident; breeds east of Coast Range; west only during winter; a rare straggler on Vancouver Island. (*Fannin.*) Common in lower valley of the Fraser; arrives in August and leaves in April. A tolerably common winter resident in Cariboo, B.C.; an abundant winter resident at Lake Okanagan, B.C. (*Brooks.*) On May 6th, 1892, one was seen at Indian Head, Assa.; and another killed by an Indian; in April, 1894, specimens were seen at Medicine Hat, Assa.; in May, 1895, a few were seen at the forks of Old Wives' Creek and nests were found in the trees up both the west and south forks; one was seen at the crossing of Frenchman's River on June 22nd; also at East End Post and Farwell Creek, where it breeds; it was also common on Lee's Creek, near

Cardston, and at Waterton Lake, Rocky Mountains, Alta.; common about the falls in Crow's Nest Pass, and south of Calgary, Alta.; occasionally seen in winter at Banff, Rocky Mountains; seen in numbers at Revelstoke, B.C., in March, and ten miles south of Kamloops in June, 1889, but not seen in April or May; a few specimens were seen on the mountains at Spence's Bridge, B.C., and at Agassiz in 1889; observed at McGuire's ranch, August 20th, near Chilliwack, B.C., and common at Huntington and Chilliwack, in the fall of 1901. (*Spreadborough.*)

Rare; only two noted and one male shot in five years, near forks of Saskatchewan. (*Coubeaux.*) Well scattered over the interior but nowhere so common as in the Okanagan valley near Vernon, B.C. (*Rhoads.*) The miners at Sunrise City, Cook's Inlet, Alaska, told us that magpies had been seen in that vicinity frequently, but we did not observe them there or at any other point on the inlet. Specimens were taken in Graham Harbour by Townsend in 1892. (*Osgood & Heller.*)

BREEDING NOTES.—Two nests of this species were found in green ash-leaved maple a little below the forks of Old Wives' Creek, Assa., June 1st, 1895. Neither contained eggs. Nest quite large, nearly two feet high. Base of nest built of coarse sticks, then lined on the inside with about an inch of clay, this cup being at least eight inches across. This is afterwards lined to a depth of two to four inches with fine rootlets and small twigs of willow. The whole covered with a canopy of coarse sticks, leaving a hole large enough for the bird to enter and leave without injuring the tail. (*Macoun.*)

MUSEUM SPECIMENS.

Ten; one taken at Medicine Hat, Assa.; one at Old Wives' Creek, Assa., and eight at Chilliwack, B.C., all by Mr. Spreadborough.

One full set of seven eggs taken at Three Hill Creek, Alta., by Capt. W. Thorburn, May 28th, 1898.

CLXIX. **CYANOCITTA** STRICKLAND. 1845.

477. **Blue Jay.**

Cyanocitta cristata (LINN.) STRICKL. 1845.

A summer migrant in Newfoundland, but not common. (*Reeks.*) Common resident in Nova Scotia. (*Downs.*) Frequently seen

towards spring in Cumberland Co., N.S. (*C.H. Morrell.*) Common resident at Sydney, Cape Breton Island. (*C.R. Harte.*) Common resident King's Co., N.S. They are great destroyers of eggs and young birds. (*H. Tufts.*) Rather common at Baddeck and Margaree, Cape Breton Island, N.S., July, 1898; one pair seen at Brackley Point, Prince Edward Island, June 25th, 1888. (*Macoun.*) A small flock was seen at Plaster Cove near Port Hawksbury, Cape Breton Island, but none elsewhere. (*Brewster.*) Not abundant on Prince Edward Island, and only occasionally met with. (*Dwight.*)

An abundant resident in New Brunswick. (*Chamberlain.*) Common in the Restigouche valley, N.B. (*Brittain & Cox.*) Taken at Beauport; common in Quebec. (*Dionne.*) Abundant everywhere, but extremely numerous at Hamilton's farm in August, 1858, Argenteuil Co., Que. (*D'Urban.*) Transient visitant at Montreal, but common. I have observed this jay here in March, May, June, September, October, November and December, and it is likely that a few winter in the district. (*Windle.*) Permanent resident at Scotch Lake, York Co., N.B. They are very destructive to eggs and young birds, but very shy about their own nests, and during their nesting season, May 20th—July 20th, they are very quiet. (*W. H. Moore.*)

A common and permanent resident in the Ottawa district; more common in summer. (*Ottawa Naturalist*, Vol. V.) Common in winter along the St. Lawrence, a few breeding. I have seen the nest in the counties of Leeds and Renfrew. The eggs are laid about the middle of May. I observed this bird breeding on the Magdalen Islands. (*Rev. C. J. Young.*) One of the most abundant resident birds in the Parry Sound and Muskoka districts. (*J. H. Fleming.*)

Not seen west of Pembina where it was abundant. (*Coues.*) This is a tolerably common summer resident in all the wooded parts of Manitoba, many retire to the thick woods in winter. (*Thompson-Seton.*) Several individuals were seen in the groves of *Quercus macrocarpa*, at West Selkirk, Manitoba. (*Prebles.*) This very handsome jay visits the Northwest Territories in summer up to Lat. 56°, but seldom approaches Hudson Bay. (*Richardson.*) Taken at Fort Churchill, Hudson Bay. (*Dr. R. Bell.*) I saw in the post residence near Chemawawin, Grand Rapids of Saskatchewan, a mounted specimen of this species, which had been killed by an Indian and mounted by Mrs. King, the wife of the post-

master. (*Nutting.*) Not an uncommon resident but more frequently seen in winter along the wooded banks of the Saskatchewan and in the well wooded parts of the prairie. (*Coubeaux.*) Not rare around Athabasca Landing, May 22nd, 1888, and up the Athabasca to Lesser Slave River; one specimen was taken three miles up the Clearwater River from Fort McMurray in Lat. $56^{\circ} 30'$; said to be quite common around Isle à la Crosse Lake and to winter there. (*J. M. Macoun.*) One observed, June 8th, 1897, at Edmonton, Alta., eating a young bird; the only one seen. (*Spreadborough.*)

BREEDING NOTES.—Found nesting in a hemlock tree near Beechwood, Ottawa. The nest was composed of sticks lined with weeds, grass and down. Eggs four, clay colour with brown spots. (*G. R. White.*)

MUSEUM SPECIMENS.

Nine; two taken at Ottawa and one at Belleville, Ont., by Prof. Macoun. One taken at Ottawa and another at London, Ont., by W. E. Saunders. Two taken by S. Herring at Toronto, Ont.; and one in Algonquin Park, Ont., by Mr. W. Spreadborough.

Three sets of eggs. One set of three taken at Port Durham, Ont., by Mr. Osbert Byers in 1893; one set of three at Minden, Ont., by Mr. A. A. Cole, June 15th, 1896; nest built of dead tamarac twigs in a black ash tree about 18 feet from the ground. One set of five taken at Berlin, Ont., by Mr. W. Raine, May 28th, 1899. Nest in an oak tree about eight feet from the ground, built of twigs, roots and grass.

478. **Steller's Jay.**

Cyanocitta stelleri (GMEL.) STRICKL. 1845.

This species was common in the vicinity of Hastings and Agassiz, B.C., west of Coast Range in May, 1889; abundant around Chilliwack and Huntington, B.C., in the summer of 1901; a very common resident throughout Vancouver Island, nesting late in April. (*Spreadborough.*) An abundant resident east and west of the Coast Range; breeds both on the island, and on mainland of British Columbia. (*Fannin.*) Quite common resident in the lower Fraser Valley, B.C. (*Brooks.*) Found only on the coast and west of the Coast Range. (*Rhoads.*) Common along the edge of the timber near the shore wherever I landed around Sitka, Alaska. (*Grimmell.*) Several specimens were taken by C.

H. Townsend at Graham Harbour, Cook's Inlet, Alaska. We did not see it farther up the inlet in Turnagain Arm. (*Osgood & Heller.*) Osgood found the remains of a Steller's Jay in the woods at Haine's Mission, Lynn Canal. (*Bishop.*)

MUSEUM SPECIMENS.

Twenty-one; one taken at Burrard Inlet, B.C., by Mr. John Fannin; two taken at Comox, Vancouver Island, by Dr. G. M. Dawson; one at Nanaimo and two at Victoria, V.I., by Prof. Macoun; eleven at Chilliwack, two at Agassiz, B. C., one at Comox and one at Victoria, V.I., by Mr. W. Spreadborough.

One set of four eggs taken near Victoria by Rev. George Taylor.

478c. **Black-headed Jay.**

Cyanocitta stelleri annectens (BAIRD) RIDGW. 1880.

A specimen of this form was shot in the Rocky Mountains by Mr. Drummond about Lat. 56°. (*Richardson.*) This species was met with only high up on the mountains near Ducks, B.C. (*Streator.*) East of Coast Range and Rocky Mountain districts. (*Fannin.*) This species was taken in the Selkirk mountains at Glacier in August, 1885; they were then numerous. Very early in April, 1890, when the snow was on the ground they were in large flocks; afterwards they scattered and retired to the mountains at Revelstoke, B.C., to breed; one family of them was seen at Robson on the Columbia River, June 19th, 1890. Of the specimens taken some approach the long-crested jay, having the white spot over the eye quite large and a blue and white frontal patch. Observed at Trail and Waneta on the International Boundary, B.C., in the summer of 1902; not common. (*Spreadborough.*) Only once taken at Chilliwack, B.C.; a common winter resident in Cariboo, B.C.; common winter resident at Lake Okanagan. (*Brooks.*) East of Coast Range and Rocky Mountain districts of British Columbia. (*Fannin.*) While many of the interior specimens are intermediate, all are more referable to *annectens* than to *stelleri*. (*Rhoads.*)

MUSEUM SPECIMENS.

Eight; one taken at Glacier, Selkirk Mountains, B.C., by Prof. Macoun; four taken at Revelstoke, one at Robson, one at Sicamous and one at Cascade, B.C., by Mr. W. Spreadborough.

478d. **Queen Charlotte Jay.**

Cyanocitta stelleri carlottæ OSGOOD. 1901.

Queen Charlotte Islands, British Columbia.

Type from Cumshewa Inlet, Moresby Island, Queen Charlotte Islands, B.C., taken June 17th, 1900, by W. H. Osgood and E. Heller.

CLXX. **PERISOREUS** BONAPARTE. 1831.484. **Canada Jay.**

Perisoreus canadensis (LINN.) BONAP. 1838.

Plentiful in the interior of the southern and western portions Labrador; breeds and is resident wherever found. (*Packard.*) Common all the way from Missanabie, on the Canadian Pacific Railway, down the Moose River, and through Ungava to Ungava Bay in 1896. (*Spreadborough.*) Common on Newfoundland and remains throughout the year. (*Reeks.*) Abundant and very tame, Humber River, Newfoundland, 1899. (*Louis H. Porter.*) An abundant resident in Nova Scotia. (*Downs.*) A common winter resident in Cumberland Co., N.S.; very fearless, coming about the buildings for scraps; I saw birds with grass in their bills late in March; they evidently nest in April. (*C. H. Morrell.*) A few observed at Baddeck, Cape Breton Island. (*F. H. Allen.*) A common resident at Sydney, Cape Breton Island, but could find no one who had ever seen a nest. (*C. R. Harte.*) Rather uncommon in King's Co., N.S., but present throughout the year. (*H. Tufts.*)

Abundant resident in New Brunswick. (*Chamberlain.*) Not uncommon in the Restigouche valley, N.B. (*Brittain & Cox.*) Abundant on Anticosti where it is a resident. (*Brewster.*) Remains all the year at Lake Mistassini in northern Quebec. (*J. M. Macoun.*) Taken at Beauport; a common resident in Quebec. (*Dionne.*) Seen only in the woods in summer; approaches the settlements in Grenville, Que., in October. (*D'Urban.*) Fort Churchill, Hudson Bay. (*Clarke.*) Transient visitant; scarce in the Montreal district; this jay visits us from the north in the autumn, but I have met with them in the spring of the year. (*Wintle.*) Permanent resident at Scotch Lake, York Co., N.B.; but becoming scarce. Have never found a nest of this species,

but have seen them carrying nest material in the latter part of March. They took wool and straw from robin's and cedar bird's nests. (*W. H. Moore.*)

This species rarely visits the immediate neighbourhood of Ottawa, though common in the hills to the north of it. (*Ottawa Naturalist*, Vol. V.) Common along the Ottawa in county of Renfrew near the lumber camps. It breeds very early in spring. I have seen one as far south as the county of Leeds, near Westport, Ont. (*Rev. C. J. Young.*) Common in the Parry Sound district; reported only as a winter resident in Muskoka by Mr. Kay. (*J. H. Fleming.*) Found very abundant at Whitney near Algonquin Park, in the fall and winter of 1898. (*J. Hughes-Samuel.*) Reported from North Bruce, but not reported from the London district. (*W. E. Saunders.*)

This species was reported at Norway House, Keewatin, and was seen nearly every day from there to York Factory; specimens were taken on the Echimamish, at Oxford House and at York Factory; several were seen at Fort Churchill. (*Prebles.*)

A common resident in wooded sections, especially among evergreens, in Manitoba; it becomes more abundant in the northern parts of the province. (*Thompson-Seton.*) On May 11th, 1892, two individuals were seen at Indian Head, Assa.; after this no others were seen. Observed three April 26th, 1897, at Edmonton, Alta. Tolerably common there; a farmer near Red Deer, Alta., found a nest with eggs in a hollow tree the first week in March. Another farmer while cutting wood near Edmonton found a nest with eggs in a spruce tree the first week in March. (*Spreadborough.*) Abundant at the Grand Rapids of the Saskatchewan. (*Nutting.*) This species inhabits the wooded districts from Lat. 56° to eastern Canada. (*Richardson.*) North on the Mackenzie to Lapierre's House; abundant. (*Ross.*) Tolerably numerous in the wooded country, even to its northern and eastern limits, but none were observed by us on the "barrens" proper, west or east of Horton River, nor on the Arctic coast. (*Macfarlane.*) From the head waters of the Yukon to the mouth of the Tanana River occur birds which are almost typical representatives of the jay found in British America. (*Nelson.*) This bird comes to the Saskatchewan as soon as the winter is here and is then seen in numbers everywhere (*Coubeaux.*) Abundant all over the interior north of the Saskatchewan. (*J. M. Macoun.*)

BREEDING NOTES.—A few pairs nest in northern Assiniboia and northern Alberta. I have a beautiful nest and four eggs that were collected by Dr. George near Innisfail, Alberta, March 5th, 1899. The nest was built in a willow seven feet from the ground and is a bulky compact nest with thick felt-like walls of wool, moss, feathers and hair. Dr. George remarked that at the time the eggs were collected the thermometer registered several degrees below zero. On March 10th, 1900, Mr. John Wright found a nest and four eggs at Horn Hill, northern Alberta. This nest was built in a willow and is a deep cup-shaped nest, very warm and well lined and has to be as the young nestlings are often exposed to 15° below zero. On March 18th, 1900, Dr. George found a nest containing one egg, in northern Alberta. This nest was also found in a willow. It will be seen, therefore, that this bird is the earliest breeder of all Canadian birds, having eggs in northern Alberta in the middle of March, at a time when the thermometer registered below zero. I have yet another set of eggs and nest that were collected by Mr. Hugh Richardson in north Saskatchewan, April 2nd, 1896. (*W. Raine.*)

MUSEUM SPECIMENS.

Three; one taken at Ottawa by Mr. S. Herring. Two fine specimens taken at Indian Head, Assa., in April, 1892, by Mr. W. Spreadborough.

484a. **Rocky Mountain Jay.**

Perisoreus canadensis capitalis RIDGW. 1873.

Only seen in the Rocky Mountains at Lat. 49° , where, however, it was common and doubtless bred. The specimens secured in this locality show the restricted dark areas of the head, upon which the variety *capitalis* is based. (*Cones.*) Only observed on Sheep Mountain, Waterton Lake, Rocky Mountains, in July, 1895; quite common and breeding at Banff, Rocky Mountains, in the summer of 1891; common high up in the Rocky Mountains from Moose Mountain, south of the Bow River Pass to Crows' Nest Pass in July., 1897; on June 6th, 1890, a young one was shot at Deer Park, Lower Arrow Lake, B.C., and later it was seen at Pass Creek, near Robson, B.C., and common in the Gold Range, B.C., in 1889. One pair seen on the mountains between the North Thompson River and the Bonaparte at an altitude of 4,500 feet. Observed

near Cascade, B.C.; also on Sophie Mountain, altitude 4,000 feet, on the International Boundary, in the summer of 1902. (*Spreadborough.*) An abundant winter resident in Cariboo, B.C.; I tried hard to find nests but failed, I believe the eggs are laid about March 25th; common in winter at high elevations at Lake Okanagan, B.C. (*Brooks.*) I noted these jays at Lac La Hache, Bonaparte, Vernon, Nelson and Field in British Columbia. (*Rhoads.*)

MUSEUM SPECIMENS.

Five; one adult specimen from Moose Mountain, 40 miles from Calgary, Alta.; one (young) specimen taken at Banff, Rocky Mountains, June 16th, 1891; another (young) at Deer Park, Columbia River, B.C., June 6th, 1890; and two adult specimens taken on the summit of the Gold Range at Griffin Lake, B.C.; all by Mr. Spreadborough.

484b. **Alaskan Jay.**

Perisoreus canadensis fumifrons RIDGW. 1880.

The only specimen brought home of this short-billed jay was killed on the roof of the dwelling house at Fort Franklin. (*Richardson.*) This form is the only *Perisoreus* found throughout the Sitkan and Kadiak region, and thence north along the region bordering the Behring Sea coast and up the wooded interior. Specimens have been taken at so many points on Behring Sea that it appears wherever alder bushes occur to afford shelter. (*Nelson.*) This bird rarely occurs at St. Michael, two specimens only being procured during three and one half years' residence. Most of my specimens were obtained at Fort Yukon, Anvik and Nulato on the Yukon River. (*Turner.*) The Alaskan jay was observed in the vicinity of spruce timber everywhere in the valley of the Kowak, Kotzebue Sound, Alaska, from the delta eastward. It was resident throughout the year, and was the most noticeable and familiar bird about camp, especially in winter. (*Grinnell.*) Occasionally seen in Cook's Inlet, Alaska. One morning a small flock visited our camp in the mountains near Hope. A few were also seen at Tyonek. (*Osgood & Heller.*) We first met this bird at Log Cabin, noted at also at Bennett and Caribou Crossing, B.C., and found it common from Lake Marsh to Circle City, Alaska, generally in families. Between White River and Circle City it

was less common than further up the Yukon. I saw one 15 miles above Fort Yukon, heard several at Hendrick's Station, August 25th, and saw one at St. Michael, September, 18th. (*Bishop.*)

BREEDING NOTES.—Toward spring the jays became remarkably reclusive, and their visits around camp were less and less frequent. I suspected that by the middle of March they would nest, and I consequently spent much time in fruitless search. On the 20th of March, while out snowshoeing across the valley, I happened to see a pair of jays flying towards a tract of spruces, and as had become almost habitual with me under such incentive, I followed them up. I did not see the birds for some time, until finally I saw a jay with a large bunch of white down in its bill, flying back along the timber. The other bird was accompanying it, following a little behind. I lost sight of them among the distant trees, but by following the general course of their flight and peering into all the thicker spruces I chanced to discover the nest. It was ten feet above the snow in a dense young spruce growing among a clump of taller ones on a knoll. It was as yet a flimsy affair, consisting of dry spruce twigs, with bits of down and feathers showing through from beneath. Although I did not disturb the nest in the least, a visit two weeks later found it covered with snow and apparently deserted. On April 10th, among ten jays, secured about twenty miles down the Kowak from our winter camp, was one female, which contained in the oviduct, a full-sized though unshelled, egg. Not until May 13th, however, did I finally find an occupied jay's nest, and its discovery then was by mere accident. It was twelve feet up in a small spruce amongst a clump of larger ones on a low ridge. There were no "tell-tale sticks and twigs on the snow beneath," as Nelson notes, and in fact nothing to indicate its location. The nest rested on several horizontal or slightly drooping branches against the south side of the main trunk. The foliage around it was moderately dense, so that it could be seen from the ground, though only as an indistinct dark spot. The bird was sitting on her nest when I discovered it. Her head and tail appeared conspicuously over the edge of the nest, and she remained on until I had climbed up within an arm's length of her. She then left the nest and silently flew to a near-by tree where she was joined by her mate. They both remained in the vicinity, but ostensibly paid little attention to me. They followed each other about playfully, uttering low conversational notes. The male would try to approach the female, vibrating his

wings and striking various coquettish attitudes, but the latter would quickly turn upon him, as if to repel his advances at such a serious time. Then both birds would pause for a moment within six inches of each other, with their beaks wide open, and mayhap a snap or two. The nest proper was built on a loose foundation of slender spruce twigs. The walls and bottom consisted of a closely felted mass of a black hair-like lichen, many short bits of spruce twigs, feathers of ptarmigan and hawk owls, strips of a fibrous bark and a few grasses. The interior is lined with the softest and finest grained material. The whole fabric is of such a quality as to accomplish the greatest conservation of warmth, which certainly must be necessary where incubation is carried on in below zero weather. (*Joseph Grinnell.*)

484c. **Labrador Jay.**

Perisoreus canadensis nigricapillus RIDGW. 1882.

Locally common in northeastern Labrador especially as far north as Port Manvers. (*Bigelow.*) Coastwise and interior, especially abundant; resident and breeds at Fort Chimo, Labrador. (*Packard.*)

BREEDING NOTES.—I have a nest and four eggs of this bird that were taken at Hamilton Inlet, Labrador, March 20th, 1894. The nest was built in a larch tree and is a beautiful structure of interlaced twigs, the nest proper being a compact woven felt-like structure of fur, hair and feathers. (*W. Raine.*) A nest taken by Mr. A. P. Low at Rigolet, Hamilton Inlet, Labrador, 25th March, 1894, is quite a bulky affair. The outside is chiefly made up of dead twigs chiefly of tamarac (larch) with a few of white spruce. The inside is of down, feathers, hair, fur and strips of the inner bark of willow felted together.

MUSEUM SPECIMENS.

Two sets of eggs, one of three and the other of four, both taken at Rigolet, Hamilton Inlet, Labrador, March 25th, 1894, by Mr. A. P. Low.

485. **Oregon Jay.**

Perisoreus obscurus (RIDGW.) SHARPE. 1877.

An abundant resident throughout the province. (*Fannin.*) Common resident on mountains above Chilliwack, B.C. (*Brooks.*)

In May, 1887, this species was found breeding on the summit of Mount Erskine, Salt Spring Island, Gulf of Georgia, B.C. (*Macoun.*) An abundant resident throughout British Columbia. (*Fannin.*) This species is not numerous on Vancouver Island and may be said to be rare in summer on the coast. (*Rhoads.*)

485a. **Gray Canada Jay.**

Perisoreus obscurus griseus RIDGW. 1899.

British Columbia, Washington and Oregon. (*Ridgway.*) This species was common on the mountain sides at Chilliwack Lake, B.C., in July, 1901. Only one specimen taken. (*Spreadborough.*)

MUSEUM SPECIMEN.

One; taken at Chilliwack Lake, B.C., July 20th, 1901, by Mr. W. Spreadborough.

CLXXI. **CORVUS** LINNÆUS. 1758.

486a. **Northern Raven.**

Corvus corax principalis RIDGW. 1887.

One specimen taken at Peary's headquarters, West Greenland; a fine specimen taken at McCormick's Bay, West Greenland by the Relief Expedition. (*Witmer Stone.*) Breeds more in south than in north Greenland, and also observed on the east coast; several pairs have been seen on Melville Island; a specimen from Beechey Island is in the Barrow collection. (*Arct. Man.*) Locally common in northeastern Labrador; especially so at Port Manvers. (*Bigelow.*) Abundant throughout the whole of Labrador; breeds at Fort Chimo; nearly fledged young seen in nest May 18th. (*Packard.*) Not common in the interior of Labrador but found in pairs throughout the country. (*Spreadborough.*) One specimen shot and others seen at Port Burwell, Hudson Strait; breeds from Norway House to Fort Churchill. (*Dr. R. Bell.*) A common resident in southern Greenland. (*Hagerup.*) Common throughout the year in Newfoundland. (*Reeks.*) Common along the Humber River, Newfoundland, 1899. (*Louis H. Porter.*) A few remain all the year at Cape Prince of Wales, Hudson Strait, but the greater number go south in September. (*Payne.*) A common resident in Nova Scotia. (*Downs.*) Not common in winter in Cumberland Co., N.S.; a pair seen at Shulee and another pair at

Partridge Island, near Parrsboro. (*C. H. Morrell.*) A common resident breeding in cliffs along the shore near Sydney, Cape Breton Island, incubation begun April 22nd, 1901. (*C. R. Harte.*) Common resident, King's Co., N.S. They often kill very young lambs. (*H. Tufts.*) A rather rare resident in New Brunswick. (*Chamberlain.*) Occasionally seen at Magaree, Cape Breton Island, N.S., in July, 1898. (*Macoun.*) Breeds on the Magdalen Islands. (*Bishop.*) Rather generally distributed in the Gulf of St. Lawrence but nowhere abundant. (*Brewster.*) One specimen shot at Lake Mistassini, in northern Quebec, May 30th, 1885. (*J. M. Macoun.*) Taken at Beauport, a rare permanent resident in Quebec. (*Dionne.*) A rare winter resident; occasionally visits the city river ice-dump. (*Wintle.*) Rare visitant to the north of Ottawa; occasionally seen near the city. (*Ottawa Naturalist*, Vol. V.) A common bird on the Magdalen Islands, breeding in the rocks and occasionally in the larger spruce trees. Rare in the cultivated parts of Ontario. I have seen a pair flying at a great height near Combermere, Renfrew Co., in the month of January. (*Rev. C. J. Young.*) A common resident in Parry Sound district; rarer in Muskoka. (*J. H. Fleming.*) I met with one or more of these birds daily during a three week's trip to Whitney, near Algonquin Park, Ont., in the fall of 1898. (*J. Hughes-Samuel.*) Very rare along the large marshes in the London district. (*W. E. Saunders.*) We saw several between Robinson Portage and Pine Lake, Keewatin, June 28th, and while descending Hill River, July 8th, noticed a pair flying about the face of a high clay bank. Except for one specimen seen at Fort Churchill, July 30th, we did not again note the species. (*Prebles.*)

Occasionally observed on the International Boundary Lat. 49°, but no specimens were taken. (*Cones.*) A tolerably common winter visitant; probably nesting in the northern lands. (*Thomson-Seton.*) This well-known bird abounds in the Northwest Territories and visits the remotest islands of the Arctic Sea. (*Richardson.*) North on the Mackenzie River to Arctic coast; abundant. (*Ross.*) This species is abundant at Fort Anderson and on the lower Lockhart and Anderson rivers; and although not seen by us there it may possibly breed on the shores of the Arctic Sea. (*Macfarlane.*) Everywhere throughout the entire territory of Alaska, including the shores of the Arctic Ocean and Behring Sea and the various islands of the latter, this bird is a well known resident. (*Nelson.*) This species is a resident

throughout the whole of Alaska. In the vicinity of St. Michael it is a resident in summer. (*Turner.*) A resident throughout the province, chiefly northward and coastwise; rarer than formerly. (*Fannin.*) Resident. (?) Not common at Chilliwack. The ravens found on the summit of the Coast Range, descending to the valley in winter, are much larger than the commoner *sinnatus*, and have a different voice. I have no doubt they belong to the larger sub-species. I shot a female during the winter that was much larger than a male of the other form; a common winter resident in the Cariboo district, B.C.; tolerably common in winter at Lake Okanagan, B.C. (*Brooks.*) One specimen was seen at Indian Head, Assa., in May, 1892; others were seen at Medicine Hat in the spring of 1894; apparently very rare in the Rocky Mountains; only one seen at Banff in the summer of 1891; only a pair seen at Revelstoke, on the Columbia River, in May, 1890; a few were seen at Deer Park, Lower Arrow Lake, and others at Robson on the Columbia River, in June of that year; observed at Trail, Sheep Creek and Coryell, near the International Boundary, B.C., in the summer of 1902; occasionally seen near Chilliwack in the summer of 1901; very abundant on many parts of Vancouver Island, but chiefly at Comox and Nanaimo in June and July; they must breed in the neighbourhood; a few also were seen at Barclay Sound, on the west coast of the island. (*Spreadborough.*) The call of this species was heard and we were told by Mr. McLean that a species of raven was not uncommon at the Grand Rapids of the Saskatchewan. (*Nutting.*) A permanent resident on the Saskatchewan, but very scarce, and only seen in winter in the great woods or about them. (*Coubeaux.*) Very abundant between Athabasca Landing and Lesser Slave River; an occasional specimen was seen on the Clearwater River, and they were not rare on Methye Portage; common between Methye Lake and Isle à la Crosse; flocking with crows on Buffalo Lake. (*J. M. Macoun.*) Ravens were abundant in the Coast Range; rare in the Bonaparte valley, at Lake la Hache, and at Vernon, B.C.; but at Nelson, B.C., they became abundant again. (*Rhoads.*) I saw a pair of ravens at Cape Blossom, Kotzebue Sound, Alaska, August 1st, 1898, and several were seen along the lower course of the Kowak later in the month. An abundant and well known scavenger. It congregates about the streets of Sitka and along the beaches with as much familiarity as the black vulture does in the south. I did not learn of its breeding any-

where about Sitka. (*Grinnell*.) Very abundant on Queen Charlotte Islands, B.C. Only moderately common in Cook's Inlet, Alaska. (*Osgood*.) Of all the birds we met with the raven occurred most regularly. It was noted from Wrangell, up the Lynn Canal, over the White Pass, and down the whole length of the Yukon. (*Bishop*.)

BREEDING NOTES.--I have a set of six eggs that were taken at Peel's River, Mackenzie Delta, on April 27th, 1900. The nest was a large structure of sticks and weeds lined with animal fur, and built on top of a spruce tree. (*W. Raine*.)

MUSEUM SPECIMENS.

Three; one taken in Quebec by Mr. Trudeau; one at Petrie Island, Ont., by Mr. Coursolle, and one at Revelstoke, B.C., by Mr. W. Spreadborough.

Parts of four sets of eggs. One perfect set of five eggs taken in the Gasperaux valley, N.S., on March 22nd, 1902. The nest was in a large hemlock tree about 50 feet from the ground. It was composed of sticks and lined with wool and coarse grass stems, and seemed to have been long in occupation, as it had been repaired year after year. Two of the other eggs were taken in Nova Scotia, and the other five at Artillery Lake, northeast of Great Slave Lake, by Mr. Fairchild.

488. **American Crow.**

Corvus americanus AUD. 1834.

Rare in Labrador; only found in southern portions; Stearns reports it from Eskimo River; Verrill records it as common on Anticosti; not known to breed in Labrador. (*Packard*.) A common migrant in Newfoundland. (*Reeks*.) A common resident in Nova Scotia. (*Downs*.) Common all winter in Cumberland Co., N.S. (*C. H. Morrell*.) Common around the shores of Cape Breton Island, 1898; also on the shores of Prince Edward Island, 1888. (*Macoun*.) A common resident at Sydney, Cape Breton Island. Eggs taken April 15th, 1901. (*C. R. Harte*.) Exceeding abundant throughout the year, King's Co., N.S. (*H. Tufts*.) Nowhere have I ever seen crows more abundant and so tame as on Prince Edward Island. (*Dwight*.) An abundant summer resident in New Brunswick. (*Chamberlain*.) Local in the Restigouche valley, N.B. (*Brittain & Cox*.) Abundant and breeding on all the Mag-

dales Islands. (*Bishop.*) Very common along the shores of the islands in the Gulf of St. Lawrence, migrating on the approach of winter. (*Brewster.*) A common summer resident in Quebec. (*Dionne.*) Plentiful in Argenteuil Co., Que., up to 10th December, a few seen in January, and abundant by the last of February. (*D'Urban.*) A rare permanent resident but a common summer one at Scotch Lake, York Co., N.B. (*W. H. Moore.*) An abundant permanent resident at Montreal, not so often seen during the winter months but sometimes appearing in large flocks at Côte St. Paul alongside the railway tracks. (*Wintle.*) A common species on Hudson Bay. (*Dr. R. Bell.*) Very abundant in the Ottawa district in summer but scarce in winter. (*Ottawa Naturalist*, Vol. V.) This bird has become very common in eastern Ontario in recent years. On Wolfe Island it has become a pest, destroying many eggs of the smaller birds, and taking young chickens and other birds. I saw a field last October (1900) literally covered with crows; they were as numerous as blackbirds. A few remain along the St. Lawrence all winter, and I have seen them in the coldest weather. (*Rev. C. J. Young.*) Abundant about the settlements in the Parry Sound and Muskoka districts. (*J. H. Fleming.*) Rather scarce in Algonquin Park, only a few pairs breeding. (*Spreadborough.*) During the cold weather of February, 1895, at Toronto these birds seemed to suffer severely from the elements combined with the scarcity of food; many becoming so exhausted as to only be able to fly short distances. (*J. Hughes-Samuel.*) A few were seen about Lake Winnipeg and Norway House, Keewatin, and a small number noted nearly every day between Norway House and York Factory. They were common at York Factory, and a few were seen at Fort Churchill, and one 50 miles south of Cape Eskimo. (*Prebles.*)

According to my observation, crows are not very common in the region under consideration (Lat. 49°), though I saw a good many along the Mouse (Souris) River. The species occurs, however, along the whole Missouri River. A nest containing five eggs, with the female parent, was secured on Quaking Ash River, June 26th, 1874. (*Coues.*) A common summer resident throughout Manitoba. (*Thompson-Seton.*) This crow is seen in the interior of the Northwest Territories in summer only and does not go beyond Lat. 55° nor approach within five or six hundred miles of Hudson Bay. (*Richardson.*) North on the Mackenzie River to Lat. 61° ; abundant. (*Ross.*) On the 10th May, 1865, an Esquimaux snared

the parent bird on a nest which was built on the top of a tall spruce in the lower Anderson River; another was taken near Fort Anderson on 5th May, 1866. (*Macfarlane*.) This species arrived at Indian Head, Assa., before April 1st, 1892, as they were numerous at that date; they were building nests by the 27th and on May 6th I found a nest with five eggs, which was in a willow tree; the nest was made of sticks lined with dried grass; this species was found in pairs nearly all over Assiniboia in 1895 wherever there was wood, but none were seen in Alberta until we reached Waterton Lake at the base of the Rocky Mountains; common at Crane Lake, Medicine Hat, Cypress Hills, Moose Jaw, and around Old Wives' Lake and Creek, also at Wood Mountain; not seen in the Rocky Mountains at Banff in 1891; rather rare along the Columbia River flats at Revelstoke; heard them at Pass Creek, Columbia River, B.C., June, 1890; May 8th, 1894, examined a number of nests at Medicine Hat, Assa., but only found one egg; a few were breeding at Crane Lake, June 12th; found a nest with four young ones; at the east end of Cypress Hills a few pairs were breeding the last week in June. (*Spreadborough*.) Abundant and surprisingly tame at the Grand Rapids of the Saskatchewan; young crows make themselves at home on the houses and in the door-yards at Grand Rapids. (*Nutting*.) This bird is our first harbinger of spring. As soon as the snow begins to melt and show the ground, they arrive, by twos, by threes, by fours, and then in greater numbers, filling the air with their cries. They mate very early and begin to build their nests long before the leaves begin to appear. (*Coubeaux*.) Very numerous at Buffalo Lake, near Methye Portage, Lat. 56°, and at Isle à la Crosse, feeding on dead fish; a few specimens between Red Deer River and Athabasca Landing, about a dozen in all. (*J. M. Macoun*.) Common summer resident east of Coast Range, B.C. (*Fannin*.)

BREEDING NOTES.—The bulk of the crows, which are migrants, begin to arrive here about the 1st of March and commence building nests in April. One nest examined on April 30th, 1882, contained six eggs incubated, and another one, May 24th, 1882, contained younglings, and a nest, May 11th, 1889, had four eggs incubated. They breed in Mount Royal Park and all over the island of Montreal. The bulk of the crows in this district migrate south before the month of December. (*Wintle*.) On June 6th, 1884,

at Binscarth on the upper Assiniboine, I found a crow's nest in a bluff of poplar trees. It was in a crotch of a large poplar, about 8 feet from the ground, and was one of the most beautiful specimens of bird architecture I ever examined, excluding, of course, all pensile nests. It was a large structure of sticks, twigs and bark strips, with a very deep cavity lined with fine fibres and beautifully finished off with a coating of cow's hair. It contained four eggs. (*Thompson-Seton*.) This species frequently nests in firs and spruces near Ottawa. Its nests are built of sticks and twigs, lined with moss, strips of bark and fine grass. Eggs, four to six; green, spotted with blackish-brown. (*G. R. White*.) Nest taken on June 2nd, 1895, a mile up the west fork of Old Wives' Creek, contained four fresh eggs. The base of the nest was of coarse sticks and the inside was lined with the inner bark of ash-leaved maple, in which tree it was built. Other nests were taken in thickets of willow and other brush in many parts of the prairie. (*Macoun*.) March 2nd, 1902, a crow was seen to be carrying nesting material at Fredericton; even at that time migration had hardly begun, this being a bird that had remained in that vicinity all winter. I have found a full set of crow's eggs April 21st. At one time a nest was found and both birds were sitting on the eggs. The cavity of the nest was much larger than ordinarily. Thinking when seeing both birds fly from the nest it might be two females laying in one nest, I climbed and found that the nest contained five nearly incubated eggs. A nest was found here containing ten eggs. (*W. H. Moore*.)

MUSEUM SPECIMENS.

Twelve; one an albino, taken near Port Hope, Ont.; two taken at Ottawa by G. R. White; two taken at Ottawa by F. A. Saunders; three taken at Indian Head, Assa., two at Medicine Hat, Assa., one at Edmonton, Alta., and one at Kamloops, B.C., all by Mr. Spreadborough.

Five sets of eggs; one set of five taken in Clarke's bush, Gloucester, near Ottawa, by W. A. D. Lees; one set of six eggs from Sturgeon Island, Lake Winnipeg, June 1st, 1889; one set of three eggs at Medicine Lodge, south of Wood Mountain, Assa., June 14th, 1895; one set of five eggs taken at Medicine Hat, Assa., May 14th, 1894; another set of four eggs taken at Edmonton, Alta., May 21st, 1897, all by Mr. Spreadborough.

489. **Northwest Crow.***Corvus caurimus* BAIRD. 1858.

Bischoff obtained numerous specimens of this little-known bird at Sitka. Dr. Bean also found it abundant at Sitka. (*Nelson.*) Common on the small islands in the bay at Sitka, Alaska, especially on St. Lazaria Island, where the young and eggs of the sea birds constituted its staple articles of food. (*Grinnell.*) Common; found breeding at Mount Lehman and at Ashcroft, B.C. (*Streator.*) Chiefly west of Coast Range; very abundant on the coast; resident. (*Fannin.*) Common resident at Chilliwack, B.C. (*Brooks.*) Very abundant from Chilliwack to Huntington, B.C., in 1901; a most abundant species on Vancouver Island, living the whole year along the coasts of the island and breeding in small spruce and Douglas fir trees; in May, 1887, a colony bred in small spruce on Comox spit. There may be two forms of this western species, but I have never been able to satisfactorily separate them. (*Spreadborough.*) On the west coast flocks are abundant. In the interior of British Columbia they are found in diminished numbers. Their habits and voices are essentially the same. (*Rhoads.*) I have two sets of four eggs each that were taken on Vancouver Island, May 12th, 1889, by Mr. Fannin. (*W. Raine.*) Not common on Queen Charlotte Islands. A flock of about thirty was seen several times near the head of Cumshewa Inlet. (*Osgood.*)

MUSEUM SPECIMENS.

Twelve; four taken at Agassiz, five at Chilliwack, B.C., and three at Victoria, Vancouver Island, by Mr. Spreadborough.

One set of four eggs taken on the sand spit at Comox, V.I., May 3rd, 1887, by Rev. G. W. Taylor.

CLXXII. **NUCIFRAGA** BRISSON. 1760.491. **Clarke's Nutcracker.***Nucifraga columbiana* (WILS.) AUD. 1834.

Since the capture of a single Sitkan specimen, taken in August by Bischoff, no Alaskan record of this bird has been made. (*Nelson.*) British Columbia. (*Lord.*) Abundant summer resident throughout the coniferous forests of the interior. (*Streator.*) A common resident east of the Coast Range; west, but very

rarely, to Vancouver Island; abundant in the pine belts along the Similkameen and along the Cariboo road above Clinton. (*Fannin*.) Resident in the mountains; rarely descending to the valley. (*Brooks*.) This species was rather common at Banff, Rocky Mountains, in 1891, and breeding in the mountains; common in the Crow's Nest Pass in August, 1897; in the summer of 1885, when the Canadian Pacific Railway was being built through the Rocky and Selkirk mountains, this bird was very common around the camps and apparently living on their refuse. (*Macoun*.) Early in the spring of 1890 this species was quite common at Revelstoke, B.C., but soon retired to the mountains; they were common at Deer Park, Lower Arrow Lake, Columbia River, B.C., on June 4th, 1890, when fully fledged young were shot; at Robson, B.C., they were abundant on the mountain sides later in the month; observed on all the mountains between Trail and Cascade, B.C., near the International Boundary, in the summer of 1902; in May and June, 1889, this species was far from uncommon at Spence's Bridge and up the Nicola valley where they seemed to be breeding; observed a few in the mountains at Chilliwack Lake, B.C., in July, 1901. (*Spreadborough*.) Common during the winter of 1897-98 at Lake Okanagan, B.C., but entirely absent the next winter; many remained to breed in 1898, and they also bred in 1897; they lay in February. (*Brooks*.) This species extends from the summit of the Coast Range to the summit of the Rocky Mountains, in British Columbia, in summer. Rare at Clinton and Lac la Hache, but wintering wherever found. The Indians declare they breed in February and again in July. (*Rhoads*.)

MUSEUM SPECIMENS.

Eight; three taken at Deer Park, Columbia River; three at Cascade, on the International Boundary, B.C., and two along the Nicola River at Spence's Bridge, B.C.; all by Mr. Spreadborough.

CLXXIII. **CYANOCEPHALUS** BONAPARTE. 1842.402. **Pinõn Jay.**

Cyanocephalus cyanocephalus (WIED.) STEJN. 1884.

Rocky Mountains, west to the Cascade Range; and from British America south to California. (*A. O. U. Check-list*.) We have no records of this bird. It will likely be found in the country about Lake Okanagan, B.C.

FAMILY XLI. **STURNIDÆ** STARLINGS.CLXXIV. **STURNUS** LINNÆUS. 1758.493. **Starling.***Sturnus vulgaris* LINN. 1758.

A single specimen sent by Holbœll to Copenhagen. (*Arct. Man.*)

FAMILY XLII. **ICTERIDÆ**. BLACKBIRDS, ORIOLES, &C.CLXXV. **DOLICHONYX** SWAINSON. 1827.494. **Bobolink.***Dolichonyx oryzivorus* (LINN.) SWAINS. 1827.

Summer resident on Cape Breton Island; but rare. (*Dwight.*) Common in summer; breeds in all the marshes in Nova Scotia. (*Downs.*) One seen at North Sydney, Cape Breton Island, May 24th, 1901; common on the meadows at Amherst, N.S. (*C. R. Harte.*) Abundant in summer along the Cornwallis valley, N.S. (*H. Tufts.*) A common summer resident in New Brunswick. (*Chamberlain.*) An abundant summer resident in suitable places at Scotch Lake, York Co., N.B. (*H. H. Moore.*) A common summer resident in Quebec. (*Dionne.*) An abundant summer resident around Montreal. (*Winile.*)

A common summer resident at Ottawa; breeds on the Experimental Farm. (*Ottawa Naturalist*, Vol. V.) One of the species that is finding its way northward. It is only a new arrival in the Muskoka and Parry Sound districts. I saw a female at Emsdale in May, 1899; she was seen later in the summer with a male and a brood of young. Mr. Tavernier saw the first one at Beaumaris in August, 1897, and reported them as increasing in 1898. (*J. H. Fleming.*) In spite of the slaughter of these birds in the rice fields it is yet common in the London district; it is more rare in the Bruce peninsula, and a few were noted on Manitoulin Island in 1880. (*W. E. Saunders.*)

At Pembina in June, bobolinks were breeding in large numbers on the open prairie adjoining the Red River. The ground near the river has a meadowy character, which seems exactly to suit them, and they were evidently perfectly at home. On Lat. 49° I traced the species westward to the Rocky Mountains, where it

was not uncommon in August about Chief Mountain Lake. (*Coues.*) A very common species throughout the prairie portions of Manitoba. (*Thompson-Seton.*) Quite common at Indian Head in eastern Assiniboia, in the fall of 1891, as well as in May of the next year; west of that it must be rare as only a few specimens were noted at the east end of the Cypress Hills in June, 1894; none were seen in 1895 until Lee's Creek was reached in southern Alberta. (*Spreadborough.*) Uncommon and seen just now only about Duck Lake and Carlton between the forks of the Saskatchewan. (*Coubeaux.*) This bird reaches its northern limit about Lat. 54° and does not seem to go very far north of the Saskatchewan. (*Richardson.*) Rare at Chilliwack, B.C.; occasional both east and west of Coast Range. (*Brooks.*)

BREEDING NOTES.—Nest near stone quarry at Ottawa, Ont., built on the ground, composed of grass and lined with fine grass. Eggs four, bluish white spotted with dark chocolate. (*G. R. White.*) Very common about Kingston, Ont. Breeds abundantly on Wolfe, Simcoe and Amherst islands, as well as on the main shore. Is a late breeder; I have found eggs as late as July 1st, but these, of course, would be a second laying. After the middle of August none are seen. (*Rev. C. J. Young.*) Breeds commonly in Manitoba where I have found several nests containing five eggs each. (*W. Raine.*)

MUSEUM SPECIMENS.

Twenty-three; three taken at Ottawa, two by F. A. Saunders and one by Prof. Macoun; one taken at London, Ont., by Mr. W. E. Saunders; fourteen taken at Indian Head, Assa., in the autumn of 1891 and spring of 1892, most of them young of the year, and two in the Cypress Hills, Assa., all by Mr. Spreadborough; another specimen was taken at Battle River, Alta., by Mr Dowling in July, 1886.

One set of six eggs taken at Wolfville, N.S., by Mr. H. Tufts June 14th, 1894, nest on the ground in tall grass.

CLXXVI. *MOLOTHRUS* SWAINSON. 1831.

495. Cowbird.

Molothrus ater (Bodd.) Gray. 1870.

Apparently not noticed in Nova Scotia. A rare summer resident in New Brunswick. (*Chamberlain.*) Taken at Beaufort;

not a common summer resident in Quebec. (*Dionne*.) A common summer resident around Montreal; breeds in many small bird's nests; I have observed a nest of the yellow warbler rebuilt on top of the first nest which contained the eggs of a cowbird. (*Wintle*) A common summer resident at Ottawa, Ont., laying in many small bird's nests. (*Ottawa Naturalist*, Vol. V.) Very abundant in Ontario, arriving in April and staying until October. It congregates in small flocks through the summer. I have seen its eggs in May, June and July; in the latter month usually in the nest of the song sparrow, or wood pewee. I have seen this bird in the winter in company with English sparrows. In December, 1889, I saw two at Lansdowne, Ont.; one of these remained with a flock of sparrows all the winter. This was the same winter I observed red-headed wood-peckers, the weather being unusually mild, and there being only two weeks of sleighing along the St. Lawrence all that winter. (*Rev. C.J. Young*.) I first saw this bird at Emsdale, Muskoka District, May 26th, 1899; about a dozen of both sexes; Mr. Kay gives 1889 as the year of their first appearance at Gravenhurst; Mr. Tavernier reported them as common at Beaumaris on April 22nd, 1898. (*J. H. Fleming*.) Common all over western Ontario. (*W. E. Saunders*.) I have nowhere found the cowbird more abundant than it is in summer throughout the region surveyed by the commission. Even were the birds not seen ample evidence of their presence in numbers would be found in the alien eggs with which a majority of the smaller birds of the country were pestered. Scarcely any species, from the least flycatcher and the clay-coloured bunting up to the towhee and kingbird, escapes the infliction. (*Coues*.) An abundant summer resident throughout the whole prairie region. (*Thompson-Seton*.) Extremely common throughout the whole of Assiniboia and dropping their eggs in all kinds of small birds' nests in the summer of 1894. In 1895, the prairie was traversed in a westerly direction for 500 miles; in all this distance it was a common object around our camps; this species is rare in the mountains, only two males were taken at Canmore, Rocky Mountains, in 1891; but it was common at Edmonton, Alberta, and southward in the foothills to the Crow's Nest Pass; two specimens reached Revelstoke in company with a yellow-headed blackbird on May 25th, 1890, and later in June a number of males were seen along the beach at Deer Park, Arrow Lake, Columbia River, B.C.; observed one specimen at Huck's ranch, Chilliwack River, B.C.

August 18th, 1901. (*Spreadborough.*) Abundant summer resident and breeds throughout the region between the forks of the Saskatchewan in company with the blackbird. (*Conbeaux.*) Two pairs seen at Fort McMurray, at the forks of the Clearwater and Athabasca rivers in Lat. $56^{\circ} 30'$. (*J. M. Macoun.*) From Vancouver Island to Okanagan, B.C. (*Fannin.*) Tolerably common east of, and a straggler west of, the Coast Range. (*Brooks.*) This bird arrives in the northwest with the blackbirds and ranges to Lat. 60° . (*Richardson.*)

Their nesting habits are such that almost every small bird becomes a foster parent for them except the tyrant flycatcher, which far from being the aggressive bird he is supposed to be is only a successful defender.

MUSEUM SPECIMENS.

Thirteen specimens; two taken at Ottawa, Ont., in June, 1888, by Prof. Macoun; two taken at Ottawa in 1890 and 1891, and one at London, Ont., in 1885 by F. A. Saunders; two at Medicine Hat, Assa., in May, 1894, two at Indian Head, Assa., in May, 1892, two at Canmore, Rocky Mountains, in May, 1891, and one at Revelstoke, B.C., in May, 1890, all by Mr. Spreadborough.

CLXXVII. **XANTHOCEPHALUS** BONAPARTE. 1850.

497. **Yellow-headed Blackbird.**

Xanthocephalus xanthocephalus (BONAP.) JORDAN. 1884.

One specimen obtained at Nevertalik, Greenland, September 2nd, 1820. (*Arct. Man.*) Taken at Godbout, Quebec, in September, 1878. (*Dionne.*) This species has been taken at Toronto a number of times in company with the red-winged blackbird by Mr. Wm. Loane. The specimen I examined was taken by that gentleman. (*Thompson-Seton* in *The Auk*, Vol. II., 335.) The specimen above mentioned is now in the possession of Mr. J. H. Fleming, of Toronto.

In the breeding season the yellow-headed blackbird gathers in colonies in some marshy spot. At Pembina it was breeding in the prairie sloughs with the black terns and red-wings. (*Coues.*) A common summer resident of the deeper sloughs of the prairie region; more plentiful to the southward in Manitoba. (*Thompson-Seton.*) This bird is very numerous in the Northwest Territories and ranges as far north as Lat. 58° , but was not seen east

of Lake Winnipeg. (*Richardson.*) I once observed this bird at Fort Simpson, on the Mackenzie River, Lat. 62°. (*Ross.*) This is a common species at Indian Head and Crane Lake and in many other parts of eastern Assiniboia; rather common at Edmonton in northern Alberta, where it bred in small communities in 1897. It was common in 1895 between Moosejaw and Old Wives' Lakes. This species requires even a wetter country than the red-wing for nesting in, as its nests are always in reeds or tall grass. It was common in June, 1895, at 12-Mile Lake, near Wood Mountain, building numerous nests in the dry reeds (*Typha latifolia*) and rushes (*Scirpus lacustris*). There were no eggs, yet on the same date in 1894, at Crane Lake, there were young in many nests and it was difficult to get unhatched eggs. The cause of the absence of eggs was evident by the lateness of the season, as on June 7th we had an all-day snow-storm. A few were seen at Wood Mountain Post; the last specimens were noted about 50 miles west of that point. Later, three specimens were noted at Spur Creek, north of Milk River and a few in its valley at Kennedy's Crossing; only one specimen seen and shot on May 25th, 1890, at Revelstoke, B.C. (*Spreadborough.*)

Abundant at Chemawawin, near the Grand Rapids of the Saskatchewan, breeding in a slough. (*Nutting.*) Scarce between the forks of the Saskatchewan, though frequently seen in company with the red-wings; breeding in the region. (*Coubeaux.*) A rare summer resident on the mainland east of the Coast Range. I have taken it above Clinton on the Cariboo Road, B.C. (*Fannin.*) A young male was shot at Vernon, B.C. Mr. D. McKinley reports them as occasionally visiting the cattle corrals at Lac la Hache. (*Rhoads.*) I have two records of this species for Chilliwack, B.C. (*Brooks.*)

BREEDING NOTES.—In one of the sloughs, where I spent most of the day wading about, sometimes up to my waist, and in some spots considerably deeper, a large number of nests were found, mostly containing nestlings, but a few with eggs. This was the last week of June. The nests were built much like those of the long-billed marsh wren, as far as the situation goes, being fixed to a tuft of reeds or bunch of tall rank marsh-grass, some stems of which pass through the substance. They were placed at varying elevations, but always far enough above the water to be out of danger of inundation. The nest is a light, dry, rustling structure,

swaying with the motion of the reed to which it is affixed, built of the same materials as those which support it, which are woven and plaited together; no mud is used, nor is there any special lining; the brim is thick and somewhat folded over, like the seam of a garment; but I never saw a nest, among the many examined, which was arched over, as stated by some authors. The diameter outside is five or six inches, and the depth nearly as much. From three to six eggs or young birds were found in different nests; the former measure about an inch and an eighth in length by three-fourths of an inch in breadth. The ground-colour is grayish-green; this is thickly spotted with different shades of reddish-brown, sometimes so profusely that the ground colour is obscured, especially at the larger end. (*Coues.*) At Crane Lake, Assa., there was a large colony of these birds which were nesting in a marsh where the water was almost three feet deep. I found that this depth of water round the edge of a reedy pond kept out foxes and coyotes, and here ducks of various kinds, black terns and coots nested in great numbers. All the nests taken by me were slight structures and always fastened to leaves or stems of cat-tail, (*Typha latifolia*). Eggs or young in nest were from three to five, never six. (*Macoun.*)

MUSEUM SPECIMENS.

Four; one procured by Dr. A. R. C. Selwyn, in Manitoba in 1885; two taken at Indian Head, Assa., in May, 1892, by W. Spreadborough; and one at Grizzly Bear Coulee, Alta., June, 1886, by Mr. Dowling.

Four sets of eggs, ranging from three to five, taken at Crane Lake, Assa., on June 8th, 1894. There were many other nests containing young or partly incubated eggs.

CLXXVIII. **AGELAIUS** VIEILLOT. 1816.498. **Red-winged Blackbird.**

Agelaius phoeniceus phoeniceus (LINN.) RIDGW. 1901.

A very rare summer resident in Nova Scotia. (*Downs.*) A rare species in Kings Co., N.S. (*H. Tufts.*) One pair at Cove Head Mill, Prince Edward Island, 5th July, 1888. (*Macoun.*) A common summer resident in New Brunswick. (*Chamberlain.*) A rare summer resident at Scotch Lake, York Co., but abundant at Grand Lake and at Bindon, Carleton Co., N.B. (*W. H. Moore.*) Taken

at Charlesbourg: rare summer resident in Quebec. (*Dionne*.) An abundant resident in the district of Montreal; observed from April 12th to November 1st. (*Wintle*.) Common in Argenteuil Co., Que.; very common in the marshes along the Ottawa River, Ont. (*D'Urban*.) A common resident in the district around Ottawa. (*Ottawa Naturalist*, Vol.V.) Very common everywhere I have been in Ontario. (*Rev. C. J. Young*.) Common in marshy districts along large rivers in the districts of Parry Sound and Muskoka. (*J. H. Fleming*.) A few pairs were nesting in the marsh along the Madawaska River below Cache Lake, also a few at Source Lake, Algonquin Park, June, 1900. (*Spreadborough*.) This species was only noticed at Pembina and was not nearly so common as Brewer's blackbird nor the yellow-headed one. The country was not suited for them. (*Coues*.) An abundant summer resident in Manitoba, frequenting the borders of willow-edged swamps. (*Thompson-Seton*.) This is an abundant species in the bushy part of the prairie region; it is always found where there is a marsh bordered by willows in which it prefers to breed. It was common at Indian Head, Assa., in 1892; at Medicine Hat, Crane Lake and Cypress Hills in 1894; in 1895 it was abundant at Moose Jaw and Old Wives' Creek in eastern Assiniboia; southward they were breeding at the forks of that creek; also in a marsh at 30-Mile Lake and at 12-Mile Lake; after this they became scarcer and only a few were seen at Wood Mountain at the police post and at Medicine Lodge 16 miles south. After this none were seen for 50 miles to the west as the country was without water. A few were seen along Frenchman's River and at East End Post and in the marshes of the creeks flowing south out of the Cypress Hills; a few were observed in the Milk River valley, above Kennedy's crossing. It is common in northern Alberta and was quite common at Edmonton in 1897. (*Spreadborough*.) Common in the Red River valley and abundant about the marshes below Robinson Portage, where two specimens were collected June 27th, 1901. A number was seen near Oxford House, Keewatin, July 4th, in the marsh between Oxford and Back lakes. (*Prebles*.) Common at the Grand Rapids of the Saskatchewan. (*Nutting*.) Common summer resident between the forks of the Saskatchewan, frequenting the willows and poplar-edged sloughs and marshes where it breeds in numbers. (*Coubeaux*.) Common at Methye Portage, Lat. 56° 30' in the spring; very common at the discharge of Methye Lake in July, 1888; not seen elsewhere. (*J. M. Macoun*.) This



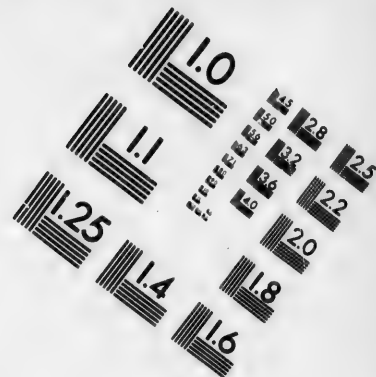
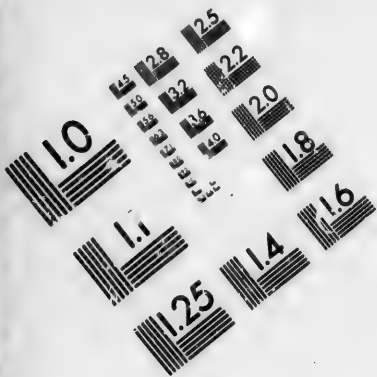
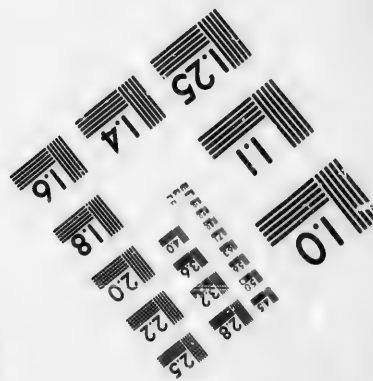
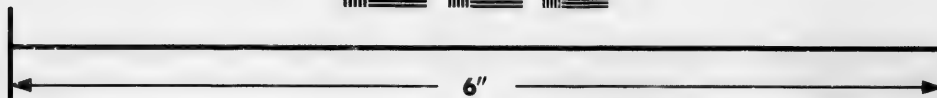
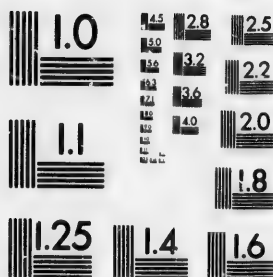


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species reaches the Saskatchewan about the beginning of May and does not pass beyond Lat. 57°. It associates itself with the other blackbirds and does great injury to sprouting grain. (*Richardson.*) North to Fort Simpson, on the Mackenzie River; common. (*Ross.*)

BREEDING NOTES.—June 11th, 1882 : Went in the morning with two brothers to the lake in the sand-hills east of De Winton; saw there large numbers of marsh terns and various kinds of blackbirds. I was unable, from the depth of the water, to reach the place where the terns seemed to be nesting, but found the nest of the red-winged blackbird in a few twigs that projected about a foot above the water, here three feet deep, and some ten feet from the shore. I saw the female leave the nest, so that the identification is good. The male did not put in an appearance at all. The nest is very deep, neat and strong; it is suspended from about a dozen upright twigs and is built much like that of a Baltimore oriole, but entirely of grass. The eggs, four in number, were all fresh; one was 1 by $\frac{1}{4}$, pale blue, and scrawled over with most curious hieroglyphics in brown-black ink; the others were similar. (*Thompson-Seton.*) Builds in bushes and low trees around Ottawa, Ont. Its nest is composed of coarse, fibrous material, strips of rushes and marsh grass; lined with fine grass. Eggs, four to six. Pale blue, dotted, blotched and scrawled with blackish-brown. (*G. R. White.*) Breeding abundantly in all pools throughout eastern Assiniboia, but becoming scarcer to the west. They always bred in communities. At Brandon, Man., nests were found in willows (*Salix longifolia*) and at Crane Lake the same species was nesting in *Scripus lacustris* or bullrushes. In 1895 the same species was breeding in a thick growth of snowberry (*Symphoricarpus occidentalis*) on dry ground, at the forks of Old Wives' Creek, Assa. Nest of leaves and stems of grasses, lined with the dried stems of *Eleocharis palustris*. At 12-Mile Lake, near Wood Mountain, Assa., they were nesting in cat-tails, and at Sucker Creek, south of the Cypress Hills in an old growth of *Carex aristata*. (*Macoun.*) On June 18th, 1892, at Indian Head, Assa., I waded out into a large slough that had a lot of rushes, (*Scirpus lacustris*) growing in it near the middle. In a few minutes I saw ten nests. Three of them had young, half-grown, and others young just hatched. Two nests with four eggs each I took. This was at 9 a.m., and at 8 p.m. I prepared to blow the eggs. On

opening the box I found one bird hatched out and one just coming from the shell. Both chicks were lively and seemed quite strong. (*Spreadborough.*)

MUSEUM SPECIMENS.

Nine ; three taken at Ottawa, in May, 1888, by Prof. Macoun ; two at Ottawa, in October, 1890, and one at London, Ont., by W. E. Saunders ; two others in Toronto by Mr. S. Herring ; one at Fort Churchill, Hudson Bay, by Dr. R. Bell.

One set of five eggs, taken on Cherry Island, Lake Winnipeg, June 15th, 1889.

498b. **Northwestern Red-wing.**

Agelaius phœniceus caurinus RIDGWAY. 1901.

This species was first taken in the marshes near Agassiz, B.C., May 10th, 1889, a few pairs were breeding at that time ; abundant in the marshes at Chilliwack, B.C., in the summer of 1901. (*Spreadborough.*) Taken at Chilliwack, B.C., in 1891 and identified by Mr. W. Brewster ; a few of these birds remain throughout the winter at Lake Okanagan, B.C. (*Brooks.*) Chiefly west of the Coast Range ; breeds on Vancouver Island ; common. (*Fannin.*) One female shot in the marsh at Comox, April 30th, 1887. Rather common around Copeland's Lake, Salt Spring Island, Gulf of Georgia, May 9th, 1887, also in a marsh near Cedar Hill, Vancouver Island. (*Macoun.*)

MUSEUM SPECIMENS.

Eight ; five taken at Chilliwack, B.C., in May, 1901, and two at Agassiz, B.C., in 1889 by Mr. Spreadborough ; one taken at the mouth of Fraser River in September, 1884, by Mr. John Fannin.

Seven eggs taken on Vancouver Island by Rev. G. W. Taylor.

498d. **Thick-billed Redwing.**

Agelaius phœniceus fortis RIDGW. 1901.

Breeding range Mackenzie River, Athabasca and other interior districts of British America. During migrations, the great plains from eastern base of Rocky Mountains to Manitoba. (*Ridgway.*)

It is probable the prairie form belongs here and on this account we place below the specimens we have from the prairies.

MUSEUM SPECIMENS.

Three; two taken at Indian Head, Assa., a female in the autumn and a male in the spring of 1892, both taken by Mr. Spreadborough. One specimen taken at Blackfoot Coulee Alta., June 17th, 1886, by Mr. Dowling.

Two sets of eggs; one of four taken at Skull Creek, near Crane Lake, Assa., June 8th, 1894, by Prof. Macoun, and another of five eggs taken at Edmonton, Alta., May 27th, 1897, by Mr. Spreadborough.

489e. **San Diego Redwing.**

Agelaius phoeniceus neutralis RIDGWAY. 1901.

Breeding range north to eastern British Columbia. (*Ridgway.*) East of Coast Range, B.C. (*Fannin.*) Taken at Vernon, B.C. (*Rhoads.*) This form was not uncommon at Penticton, south of Lake Okanagan, B.C., in April, 1903, and at the mouth of the Spullamacheen River, Shuswap Lake, in August, 1889. (*Spreadborough.*)

MUSEUM SPECIMENS.

Two males taken at Penticton, B.C., April 10th, 1903, by Mr. Spreadborough.

NOTE.—It will be noticed that the ranges of the eastern redwing and that of the northern form overlap. Our specimens taken on the prairie are placed under the latter form. When we have more specimens of the northern bird, we can speak with more certainty.

LXXIX. **STURNELLA** VIEILLOT. 1816.501. **Meadow Lark.**

Sturnella magna (LINN.) SWAINS. 1827.

Very rare in Nova Scotia; a mere straggler. (*Downs.*) A rare summer resident in New Brunswick. (*Chamberlain.*) One individual seen at Scotch Lake, York Co., N.B., in 1879; none since. (*W. H. Moore.*) Summer resident but scarce in the district of Montreal. (*Wintle.*) A moderately common summer resident at Ottawa, Ont., breeding on the Experimental Farm. (*Ottawa Naturalist*, Vol. V.) Very common in the old settlements of Ontario; I used to see a few in the county of Renfrew; observed three on Wolfe Island, April 4th, 1901. (*Rev. C. J. Young.*) Mr.

Kay puts the first appearance of this species in Muskoka about 1863, and regards it as becoming common at Port Sydney; it occurs at Beaumaris. (*J. H. Fleming.*) Common in the London district; a very few winter with us in most years; not common in north Bruce and on Manitoulin Island. (*W. E. Saunders.*) Not very common at Ottawa. Nest on the ground, built of dried grass; lined with finer grass. Eggs four to six. White, speckled with reddish and purplish. (*G. R. White.*)

MUSEUM SPECIMENS.

Three; one purchased with the Holman collection in 1885; one taken near Toronto, Ont., by Mr. Samuel Herring; one taken at London, Ont., by Mr. W. E. Saunders.

One set of four eggs taken at Port Hope, Ont., May 30th, 1899, by Mr. Meeking. Nest of fine dry grass and placed in a hole in the ground in a meadow where the grass was several inches high.

501b. **Western Meadow Lark.**

Sturnella magna neglecta (AUD.) ALLEN. 1872.

One specimen of this species was taken by Mr. G. R. White within the city of Ottawa. The bird was singing on top of an elm tree when shot.

All the meadow larks observed on the International Boundary Lat. 49° were this form. They are a common bird of the whole country, though less numerous as we approach the Rocky Mountains. (*Coues.*) An abundant summer resident of the prairie part of Manitoba, breeding freely at all points. (*Thompson-Seton.*) A number was seen along the Red River between Winnipeg and West Selkirk, June 14th, 1901. Specimens procured at Winnipeg have been examined and prove referable to this form. (*Prebles.*) This is a characteristic bird of Assiniboia and Alberta. It is common everywhere where there is brush or trees, although it always builds on the prairies, yet it mounts a tree or bush to sing, and evidently nests in the vicinity; in traverses of over 1,000 miles by wagon it was constantly found where there was brush. It was quite common on Lee's Creek and Milk River in southern Alberta. Only one seen at Edmonton, Alta., in 1897, but they were common in the foothills south to Crow's Nest Pass. Apparently rare in the Rocky Mountains, but it is common as far as Morley, in the Bow River Pass. None observed at Banff in 1891, and only

one specimen seen at Revelstoke, B.C., in 1890; not uncommon at Kamloops and southward as well as along the Thompson River to Spence's Bridge, B.C.; abundant at Agassiz, Chilliwack and Huntington, B.C., summer of 1901; but in 1902 was common at Trail and Cascade, on the International Boundary; a common summer resident on Vancouver Island; a number winter near Victoria; tolerably common at Comox, V.I., while I was there in June, 1893. (*Spreadborough.*) The prairie lark is a common summer resident between the forks of the Saskatchewan; breeding throughout the country. (*Coubeaux.*) Abundant in the lower Fraser valley; a number remain about the stacks and barnyards at Lake Okanagan, B.C., all winter. (*Brooks.*) Abundant both east and west of Coast Range, B.C., winters on Vancouver Island. (*Fannin.*) Very rare at Lac la Hache, in all other open situations abundant from Vancouver Island to the Rocky Mountain foothills. (*Rhoads.*) I have often found the nests of this species in Manitoba and Assiniboia. It lays five or six eggs which average smaller than those of the eastern meadow lark. (*W. Raine.*) This beautiful bird arrives on the Saskatchewan about the beginning of May, but was not seen any further north. (*Richardson.*) Abundant in some localities in British Columbia. (*Lord.*) Common on the coast of British Columbia where there are meadows; very abundant in the interior. I was told that this species only appeared within the last few years. (*Streator.*)

MUSEUM SPECIMENS.

Fifteen; three taken at Indian Head, Assa., in May, 1892; two at Medicine Hat, Assa., in April, 1894; one at Agassiz, B.C., in May, 1889; five at Chilliwack, B.C., August and September, 1901; two at Cascade, on the International Boundary, B.C., May, 1902; and one at Victoria, Vancouver Island, May, 1893; all taken by Mr. W. Spreadborough.

Sixteen eggs, all collected on Vancouver Island by Rev. G. W. Taylor.

CLXXX. **ICTERUS** BRISSON. 1760.506. **Orchard Oriole.**

Icterus spurius (LINN.) BONAP. 1823.

Three examples of this species were taken in New Brunswick by Mr. Boardman. (*Chamberlain.*) Prior to 19th May, 1898, when

I met with a young male, I had only heard of two or three of this species having been observed as far east as Toronto. On 19th May, 1900, I met with a pair and took a male of second year; and for the following week or two saw one or more almost daily. On July 5th I located a pair nesting and am pleased to say that they were not molested. I think this is the first recorded instance of nesting in this locality; but I believe an occasional nest is found near Oakville. I trust to be able to record the arrival of these birds in increasing numbers each succeeding year. (*J. Hughes-Samuel.*) Quite common in the three western counties of Ontario but only occasionally observed near London, and not reported from farther north. Breeds over its whole range. The few nests that have been found have been made chiefly of green grass which makes their discovery very difficult. (*W. E. Saunders.*) One specimen was taken early in June at Pembina, the only locality where observed. (*Coues.*)

MUSEUM SPECIMENS.

One mounted specimen purchased with the Holman collection.

One set of four eggs taken at Chatham, Ont., June 30th, 1887, purchased from Mr. W. Raine.

507. **Baltimore Oriole.**

Icterus galbula (LINN.) COUES. 1880.

Not observed in Nova Scotia. A pair seen on the Charlottetown Road, near Brackley Point, Prince Edward Island, 10th July, 1888. (*Macoun.*) Very rare at St. John, N.B., but said to be common in other localities. (*Chamberlain.*) Rare summer resident at Scotch Lake, York Co., N.B. They are becoming commoner every year. Nest in tall elms near Fredericton. (*W. H. Moore.*) Common around Fredericton, N.B., in the spring of 1898. (*D. Lee Babbit.*) A rare summer resident in Quebec. (*Dionne.*) Heard singing at Chain Lake, Montcalm, Argenteuil Co., Que. (*D'Urban.*) Common summer resident in the district of Montreal; breeds in the city; observed from May 7th to to August 21st. (*Wintle.*) York Factory, Hudson Bay. (*Dr. R. Bell.*) A common summer resident about Ottawa; breeds in large numbers in elm trees in the city and its suburbs. (*Ottawa Naturalist*, Vol. V.) One of the commonest birds around Kingston, Ont., and apparently increasing. Has reached the county of

Renfrew, where I have seen it. (*Rev. C. J. Young.*) Mr. Kay gives 1887 as the year of its first appearance at Port Sydney, Muskoka district; Mr. Tavernier refers to it as becoming increasingly common at Beaumaris. (*J. H. Fleming.*) A common summer resident throughout southern Ontario; but quite rare in North Bruce, where I only observed three specimens in four weeks. (*W. E. Saunders.*) Abundant at Pembina, the only locality where it was found on the International Boundary, Lat. 49° ; several nests with eggs in them were taken during the latter part of the month of June. (*Coues.*) A common summer resident of open woodlands in the south and west of Manitoba. (*Thompson-Seton.*) One seen flying across Red River about midway between Winnipeg and West Selkirk, June 14th, 1901. (*Prebles.*) In the spring of 1892 many specimens were seen at Indian Head, Assa., and nearly all remained to breed; others at Medicine Hat, Assa., in May, 1894; and others were taken on Old Wives' Creek, Assa., in May, 1895. None were observed south or west of the above point. Arrived at Edmonton, Alta., on May 20th, 1897; later many were seen flying north but a few remained to breed. They nested in tall poplars over 30 feet from the ground, yet nests were found in bushes six feet from the ground. (*Spreadborough.*) This handsome bird is a regular and not uncommon visitor between the forks of the Saskatchewan; frequently seen and heard in the thickets where it hangs its pretty nest. (*Coubeaux.*) This bird ranges through the central part of the Northwest Territories up to Lat. 55° , beyond which it does not seem to go. (*Richardson.*)

BREEDING NOTES.—I found a nest of this bird June 7th, 1890, at Dorval, built in the top of a thin bush, within reach of hand from the ground, and containing five fresh eggs, but as a rule their nests are built here hanging to branches of large trees, twenty or thirty feet above the ground. I saw this species feeding on the ground, an unusual position to find the oriole in, as they generally confine themselves to the trees and bushes when feeding. (*Wintle.*) Breeds throughout Manitoba and in Assiniboia as far west as Crescent Lake. (*W. Raine.*) Builds near the end of a long branch, elm tree preferred at Ottawa. Nest composed of the flax of silk weed, willow down, wool string, lined with lint, wiry grass and horse hair; eggs five, white with a faint tinge of blue, spotted, scrawled and streaked with lilac and brown, mostly towards the larger end. (*G. R. White.*) On June 25th, 1882, on the north bank of the eastern slough, I found a Baltimore oriole's nest in

an oak tree, about 10 feet high. This nest was about four inches deep. It was formed of the outer bark of the *Asclepias*, and so thoroughly interwoven and "darned" that the fabric was like a thick warm felt. It was remarkably strong, too, and with a view to testing it in this particular I brought it home with the branch that bore it, and, having hung to it a pail by a band across the upper surface, proceeded to add weight. Fifteen pounds were gradually added without it showing any signs of breaking, but at the seventeenth the weight slipped to one side, and being thrown upon but one of the fastenings, broke it. I then procured another nest, an old one of the same material, and tried it successively with 15, 20, 25, 27 pounds, and still it held together; 29 and 30 were reached without breakage, but at 31 it began to give, and after a few seconds the weight tore through the fabric, without, however, injuring the fastenings at the top. On October 19th found an old nest of an oriole down by the slough. It was woven of strips of *Asclepias* bark and suspended from four or five twigs. I made a careful test of its strength and found that it bore 15 pounds weight without the least sign of breaking, but an additional two pounds, thrown carelessly on, tore it from its fastenings. (*Thompson-Seton*.)

MUSEUM SPECIMENS.

Six; one taken at Ottawa in May, 1888, by Prof. Macoun; three at Toronto, Ont., by Mr. S. Herring; one at Indian Head, and another at Old Wives' Creek, Assa., in 1895, by Mr. Spreadborough.

One set of six eggs taken at Toronto and purchased from Mr. W. Raine. Another set of five eggs taken at Port Hope, Ont., by N. H. Meeking June 1st, 1900. Nest, a purse-shaped structure of rags, paper, thread and twine hung in the slender branches of an elm.

508. **Bullock's Oriole.**

Icterus Bullockii (SWAINS.) BONAP. 1838.

Breeding in considerable numbers in trees in the valley of the Saskatchewan at Police Point, Medicine Hat, Assa., May, 1894; not noticed further east; a large colony was found breeding in the valley of the Thompson at Kamloops, B.C., in June, 1889; rather rare at Spence's Bridge, B.C., in 1889; one specimen seen at Chilliwack, B.C., May 23rd, 1901. (*Spread-*

borough.) Abundant in some parts of British Columbia. (*Lord.*) I met with this bird only at Ashcroft, where one specimen was taken and a few more seen. (*Streator.*) East of Coast Range only; a rare summer resident; breeds at C  che Creek. (*Fannin.*) Rare at Ashcroft and disappearing midway between Ashcroft and Clinton, on the Bonaparte River; more numerous at Kamloops, and abundant around Swan Lake, at Vernon, B.C. (*Rhoads.*) Abundant east of Coast Range; a few pairs breed west of it at Chilliwack, B.C. (*Brooks.*)

MUSEUM SPECIMENS.

Ten; seven taken at Medicine Hat, Assa., in May, 1894; three at Kamloops, B.C., in June, 1889, all by Mr. W. Spreadborough.

CLXXXI. **SCOLECOPHAGUS** SWAINSON. 1831.509. **Rusty Blackbird.**

Scolecophagus carolinus (M  LL.) RIDGW. 1885.

Common in Labrador; breeds at Fort Chimo, where young just from the nest were obtained July 10th, 1884. (*Packard.*) One pair observed on Moose River, June 2nd, 1896; doubtless breeding; tolerably common in marshes from Richmond Gulf to Ungava; seen in flocks in the interior, July 24th. (*Spreadborough.*) A regular and common summer migrant in Newfoundland. (*Reeks.*) Fairly common along the Humber River, Newfoundland, 1899. (*Louis H. Porter.*) Common summer resident in Nova Scotia. (*Downs.*) Fairly common from the last of March till September in Kings Co., N.S. (*H. Tufts.*) Bayley says it breeds freely in the alders near Sydney, Cape Breton Island. First seen May 7th, common by June 8th, and remained all summer. (*C. R. Harte.*) Occasionally seen at Baddetk and Margaree, Cape Breton Island, N.S. (*Macoun.*) A flock of twenty or more, largely young birds, near east point of Prince Edward Island, was seen July 7th; these were the only ones observed although I had heard of their occurrence before. (*Dwight.*)

An irregular summer visitor in New Brunswick. (*Chamberlain.*) A common spring and autumn migrant at Scotch Lake, York Co., N.B. Have heard recently that this species breeds at Benton, Carleton Co. (*W. H. Moore.*) Taken at Beauport; a migrant in spring and autumn in Quebec. (*Dionne.*) Breeds abundantly in

swamps at East Point, Magdalen Islands. (*Bishop.*) Common and breeding at Lake Mistassini, northern Quebec. (*J. M. Macoun.*) Fort Churchill, Hudson Bay. (*Wright.*) A common transient visitant in the Montreal district; arrives in small flocks in spring and passes further north to breed, returning in autumn in larger flocks. (*Windle.*) York Factory, Hudson Bay. (*Dr. R. Bell.*)

A common spring and autumn migrant; it may breed sparingly in the northern part of the Ottawa district. (*Ottawa Naturalist*, Vol. V.) I found this bird breeding commonly in the Magdalen Islands. In the month of June the young were hatched and I secured two sets of eggs from there. In the summer of 1898 I saw one bird near Lansdowne, Ont., but in the month of October large flocks arrive from the north. (*Rev. C. J. Young.*) Assembling in large flocks in Muskoka and Parry Sound districts; I am not aware that they breed in these districts. (*J. H. Fleming.*)

Several seen and a female taken near the head of Echimamish, Keewatin, where they were undoubtedly breeding. Large flocks seen at Fort Churchill. Later, in the season of 1901, they were found abundant on the return south from York Factory. (*Prebles.*) The rusty grackle enters Dakota from the north in September, and then mixes indiscriminately with Brewer's blackbird; but the two will not be found together during the breeding season. (*Coues.*) An enormously abundant migrant in Manitoba in the spring and autumn migrations; a few may breed. (*Thompson-Seton.*) Common at Indian Head in the spring of 1892; none were observed on the prairie in 1894 and 1895; in the spring of 1897 they were abundant at Edmonton, Alta., and a nest was taken in a thicket overhanging a pool of water. (*Spreadborough.*) Common at Chemawawin, near the Grand Rapids of the Saskatchewan. (*Nutting.*) Arrives in the spring in flocks between the forks of the Saskatchewan. (*Coubeaux.*) Abundant everywhere between Calgary and Athabasca Landing in northern Alberta; rare at Fort McMurray in Lat. $56^{\circ} 30'$; not rare at Methye Portage; abundant between Methye Lake and Isle à la Crosse in 1888. (*J. M. Macoun.*) This was a fairly common bird along the Kowak, Kotzebue Sound, from the delta eastward. They were seen in small flocks until September 8th, and the following spring returned in flocks, May 22nd, after which they separated into smaller groups. (*Grinnell.*) This sombre-coloured bird is the most northern of the American *Sturnidae*, its summer

range reaching to the 68th parallel, or as far north as the woods extend. It reaches the Saskatchewan about the end of April, and is at Great Bear Lake, Lat. 65° , by the 3rd of May, generally in pairs. (*Richardson.*) North on the Mackenzie River to Fort Good Hope; common. (*Ross.*) This bird is fairly abundant in the neighbourhood of Fort Anderson, and they were frequently observed as far as the eastern limits of the forest, as well as near the "crossing" of the Horton River in about Lat. 69° . The twenty-five nests discovered were built in trees from five to eight feet from the ground. (*Macfarlane.*) This species is a regular summer resident in northern Alaska wherever trees and bushes are found, reaching the vicinity of the sea-coast; in northern Alaska it reaches Lat. 70° . (*Nelson.*) This bird is one of the earliest land birds to arrive at St. Michael. It is not common there and does not breed in the vicinity to my knowledge. (*Turner.*) Saw two specimens at Log Cabin, in the White Pass, on June 15th, 1899. Osgood took a specimen near Fort Yukon, Alaska, and a small flock was seen near St. Michael. (*Bishop.*) Two males were shot at Tyonek, Cook's Inlet, Alaska, in September, 1899. (*Osgood.*)

BREEDING NOTES.—Met with at London as a rare migrant in spring and more common in the fall, but in North Bruce it breeds sparingly on the inland lakes where I found a nest on June 9th, 1887. The nest was placed in a maple shrub, two feet over the water and was made of tamarac and other twigs lined with green grass, with mud between it and the exterior twigs. It contained three eggs whose spots are more rufous and ground colour more greenish than those of Brewer's blackbird. (*W. E. Saunders.*) Gradually pushing east it has always been rare at Toronto, but Mr. J. Hughes-Samuel found a pair nesting at Toronto Island in the spring of 1900. (*J. H. Fleming.*) A few pairs nest in northern Assiniboia but most of the birds go further north to nest. It is often confounded with Brewer's blackbird as the nests and eggs resemble each other. (*W. Raine.*) Arrived at Edmonton, Alta., May 20th, 1897; on June 10th found a nest with four young and one egg. The nest was placed upon a spruce tree which had fallen a number of years before and was bleached white by the weather and was hanging horizontally over a small pond, that was in the heavy timber near the river. The tree was about a foot from the water, where the nest was. I also found an old nest upon a heap of old spruce brush in the same pond. The nest was

made of dry grass. There were no weeds or grass in the pond. June 13th I saw young able to fly, these were in a dried-up slough in the heavy timber. (*Spreadborough.*)

MUSEUM SPECIMENS.

Nine ; one taken at Ottawa by Mr. W. T. Macoun in October, 1901 ; two taken at Ottawa in April, 1891, by Mr. F. A. Saunders ; four taken at Indian Head, Assa., in April, 1892, and September, 1891, by Mr. W. Spreadborough.

One set of five eggs taken at Davidson's Lake, Hants Co., N.S., by "Robie" Tufts, June 12, 1901. Nest in a small spruce tree six feet from the ground, made of twigs and lined with fine dry grass and rootlets.

510. **Brewer's Blackbird.**

Scolecophagus cyanocephalus (WAGL.) CAB. 1851.

This is the characteristic blackbird of the whole region along the International Boundary from Pembina to the Rocky Mountains. (*Coues.*) An abundant summer resident in most districts ; this species gathers in large flocks and commits great depredations in wheat and oat fields in the autumn. (*Thompson-Seton.*) Common in the Red River valley between Winnipeg and West Selkirk, June 14th, 1901. (*Prebles.*) Very abundant at Indian Head, Medicine Hat and Crane Lake, indeed throughout Assiniboia wherever there was brush this species was breeding in large numbers. This is the characteristic blackbird of Assiniboia and Alberta, at least as far north as Edmonton, and abounds everywhere from the International Boundary northward to the Saskatchewan ; a few were seen in the spring of 1891 at Banff, Rocky Mountains, but they do not breed there ; seen at Revelstoke on the Columbia River, B.C., April 4th, 1890, and later on, May 3rd, a few more were seen ; they do not breed there ; in flocks 10 miles south of Kamloops, B.C. ; also common at Agassiz in May, 1889 ; common at Chilliwack, B.C., in the spring ; only observed three at Huntington in the fall of 1901 ; only one specimen seen on Vancouver Island, April 16th, 1893, none seen afterwards. (*Spreadborough.*) Apparently rather common at the Grand Rapids of the Saskatchewan. (*Nutting.*) This species, the rusty grackle and the bronze grackle arrive together, in flocks, in spring and afterwards separate and breed in colonies. (*Cou-*

beaux.) A few individuals of this species remain at Lake Okanagan, B.C., all winter. (*Brooks.*) Both east and west of the Coast Range; common in spring and fall at the mouth of the Fraser, B.C.; breeds in the neighbourhood of Clinton. (*Fannin.*) Breeding in suitable localities, both east and west of the Coast Range to Vernon, B.C., in the south, and Lac la Hache in the north. (*Rhoads.*) North to Fort Simpson on the Mackenzie River. Not rare. (*Ross.*) Common in some parts of British Columbia. (*Lord.*) Generally distributed in British Columbia but not common. (*Streator.*)

BREEDING NOTES.—On June 8th, 1882, C. T. found a grackle's nest on the newly harrowed ground in a field not more than 20 yards from a clump of willows. The eggs, five in number, were in a slight hollow in the ground, without a single straw or any pretence at lining. My brother sprang the bird and then called me. I did not see the bird rise, but a pair of grackles were flying about and noisily resented our interference, and as no other birds were near, I feel safe in the identification. The dozen of nests of this species which I have examined were all either on the ground or in low forks or saddled on logs, close to some pond, and were more or less composed of mud when elevated. I found half a dozen nests around a single small lake on the Duck Mountain. The eggs are in colour between those of the rusty and purple grackles. (*Thompson-Seton.*) This species builds a large nest of the stalks of dried plants, lined on the inside with horse-hair. In size it averages over six inches across with a cup over three inches and a depth of at least $1\frac{1}{2}$ inches. Eggs usually five, variously speckled and spotted. Nests always placed in close thickets and mostly in small communities. Nests were taken at Medicine Hat and Old Wives' Creek, Assa., in thickets of *Prunus*, *Cratægus*, *Symphoricarpos*, and willows of various kinds.

MUSEUM SPECIMENS.

Sixteen; six taken at Indian Head, Assa., in September, 1891 one at Old Wives' Creek, Assa., in May, 1895, four at Medicine Hat, Assa., in May, 1894, four at Agassiz, B.C., in May, 1889, and one at Cascade, B.C., on the International Boundary, in June, 1902; all by Mr. Spreadborough.

Four sets of eggs. One of five eggs taken at Medicine Hat, Assa., June 3rd, 1894, one of five taken at Old Wives

Creek, Assa., May 30th, 1895, both by Prof. Macoun. Two sets of eggs, five and six respectively, taken at Edmonton, Alta., May 22nd, 1897, by Mr. W. Spreadborough.

CLXXXII. **QUISCALUS** VIEILLOT. 1816.511b. **Bronzed Grackle.**

Quiscalus quiscula æneus (RIDGW.) STEJN. 1885.

A summer migrant in Newfoundland, but rare. (*Reeks.*) Rare in Nova Scotia; only three specimens seen. (*Downs.*) Rare in King's Co., N.S.; one observed May 3rd, 1895, (*H. Tufts.*) Migrants arrived at Shulee, Cumberland Co., N. S., March 12th. (*C. H. Morrell.*) One pair seen at Tracadie, Prince Edward Island, 11th July, 1888. (*Macoun.*) A pair of these birds in Mr. Earle's possession were the only ones he had ever seen on Prince Edward Island. (*Dwight.*) An abundant summer resident in New Brunswick. (*Chamberlain.*) Very rare in the Restigouche valley. (*Brittain & Cox.*) A common summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Taken at Beauport; a common summer resident in Quebec. (*Dionne.*) An abundant summer resident in the Montreal district; breeds in the city; observed here from April 1st to October 11th. (*Windle.*) Fort Churchill, Hudson Bay. (*Wright.*) York Factory, Hudson Bay. (*Dr. R. Bell.*) Several seen near Sea Falls and on the lower Echimamish, June 24th, 1901; common down to Oxford House, but none seen below. (*Prebles.*)

A common summer resident in the Ottawa district. (*Ottawa Naturalist*, Vol. V.) A common summer resident, but the flocks that collect in the fall are not so large as formerly, I notice. I saw none on the Magdalen Islands; arrived on Wolfe Island, April 2nd, 1901. (*Rev. C. J. Young.*) A common breeding species in the Muskoka and Parry Sound districts; at Kearney they nest in old woodpecker holes. (*J. H. Fleming.*) Abundant everywhere along the shores of the lakes in Algonquin Park; young ones able to fly by June 18th, 1900. (*Spreadborough.*)

Abundant at Pembina where it was breeding in June in the hollows of trees. Occurred sparingly along the Mouse (Souris) River in the fall, and during 1874 was traced westward to the Rocky Mountains. (*Coues.*) An abundant summer resident in Manitoba wherever there is wood and water; it apparently extends as a straggler northward to Hudson Bay. (*Thompson-Seton.*) A

common summer resident in the wooded parts of Assiniboia, at Indian Head, where nests were taken June 20th, 1892; one nest was on the side of a large poplar tree, in a bunch of small twigs that grew out from the side of it about 10 feet from the ground; also at Medicine Hat, and nesting in Cypress Hills in 1894; in May, 1895, nests were taken in holes in *Acer Negundo* near the mouth of Old Wives' Creek, eastern Assiniboia. First seen at Edmonton, Alta., April 24th, 1897; quite common by May 31st; found a nest in a balsam stub. Nest composed of weeds lined with grass. Incubation had been going on for about a week; next found a nest with young lately hatched. (*Spreadborough.*) Very abundant at the Grand Rapids of the Saskatchewan. (*Nutting.*) Breeding abundantly between the forks of the Saskatchewan. (*Coubeaux.*) Breeding abundantly from Winnipeg, Manitoba, to the foothills of the Rocky Mountains in Alberta. (*W. Raine.*) These birds arrive on the Saskatchewan about the beginning of May and soon after pair and commence to breed. They build their nests like rooks, several in the same tree and occasionally in the loose sticks of an osprey's nest. (*Richardson.*) North to Fort Simpson on the Mackenzie River; rare. (*Ross.*)

BREEDING NOTES.—In the neighbourhood of Ottawa, Ont., this species nests in a tree or bush. Its nest is built of mud; lined with grass and rootlets, horse hair and leaves. Eggs five to six, bluish or greenish with purple veining and clouding with dark-brown and blackish. (*G. R. White.*) This species nests in barns on islands and intervalles along the St. John River, N.B.; sometimes there being three and four nests in one barn. They are usually built on beams or in the angle of a post and brace of the framework. The eggs number from three to five and are hatched by May 24th. (*W. H. Moore.*) Numbers were building in holes of dead ash-leaved maple at Old Wives' Creek, Assa., in May, 1895. One nest was taken on May 30th in a clump of tall chokecherries. It was about six feet from the ground and was about eight inches across and built of the stems of various weeds. The inside was plastered with earth and afterwards lined with grass stems and a little horse hair. It was shaped like the nest of Brewer's blackbird, but smaller. (*Macoun.*)

MUSEUM SPECIMENS.

Six; one taken at Belleville, Ont., in May, 1880, by Prof. Macoun; one at London, Ont., by W. E. Saunders; two at Indian

Head, Assa., in April 1902, one at Old Wives' Creek, Assa., in May, 1895, and one at Medicine Hat, Assa., in April, 1894, all by Mr. W. Spreadborough.

Four sets of eggs. One set of nine in nest and one on ground taken at Manotick, Carleton Co., Ont., June 1st, 1899, by Mr. H. Frechette; nest in a pine tree about 12 feet from the ground, made of twigs. A set of six eggs, taken in choke-cherry trees at Lake Manitoba, June 15th, 1889, by J. B. Tyrrell. One set of five eggs taken at Ottawa by Dr. James Fletcher. One set of four eggs taken near Edmonton, Alta. May 31st, 1897, by Mr. W. Spreadborough.

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